

VOLUME 21  
NUMBER 11

AMAZING STORIES

NOVEMBER  
1947

# AMAZING

ANC

NOVEMBER 25¢

## STORIES



THE GIANTS OF MOGO by DON WILCOX

# Out of some cold figures, came a story to warm America's heart

NOT LONG AGO, the Secretary of the United States Treasury studied a figure-covered sheet of paper.

The figures revealed a steady, powerful upswing in the sale of U. S. Savings Bonds, and an equally steady decrease in Bond redemptions.

But to the Secretary, they revealed a good deal more than that, and Mr. Snyder spoke his mind:

"After the Victory Loan, sales of U. S. Savings Bonds went down—redemptions went up. And that was only natural and human.

"It was natural and human—but it was also dangerous. For suppose this trend had continued. Suppose that, in this period of reconversion, some 80 million Americans had decided not only to stop saving, but to spend the \$40 billion which they had *already* put aside in Series E, F & G Savings Bonds. The picture which *that* conjures up is not a pretty one!

"But the trend did NOT continue.

"Early last fall, the magazines of this country—nearly a thousand of them, acting together—started an advertising campaign on Bonds. This, added to the continuing support of other media and advertisers, gave the American people the facts . . . told them why it was important to buy and hold U. S. Savings Bonds.

"The figures on this sheet tell how the Ameri-

can people responded—and mighty good reading it makes.

"Once more, it has been clearly proved that when you give Americans the facts, you can then ask them for action—and *you'll get it!*"

## What do the figures show?

On Mr. Snyder's sheet were some very interesting figures.

They showed that sales of Savings Bonds went from \$494 million in last September to \$519 million in October and kept climbing steadily until, in January of this year, they reached a new postwar high: **In January, 1947, Americans put nearly a billion dollars in Savings Bonds. And that trend is continuing.**

In the same way, redemptions have been going just as steadily downward. Here, too, the trend continues.

Moreover, there has been, since the first of the year, an increase not only in the volume of Bonds bought through Payroll Savings, but in the number of buyers.

## How about you?

The figures show that millions of Americans have realized this fact: there is no safer, surer way on earth to get the things you want than by buying U. S. Savings Bonds regularly.

They are the safest investment in the world. Buy them regularly through the Payroll Plan, or ask your banker about the Bond-a-Month Plan.

## Save the easy, automatic way—with U.S. Savings Bonds

*Contributed by this magazine in co-operation  
with the Magazine Publishers of America as a public service.*





# THOUGHTS HAVE WINGS

*You Can Influence Others  
With Your Thinking!*

**TRY IT SOME TIME.** Concentrate intently upon another person seated in a room with you, without his noticing it. Observe him gradually become restless and finally turn and look in your direction. Simple—yet it is a positive demonstration that thought generates a mental energy which can be projected from your mind to the consciousness of another. Do you realize how much of your success and happiness in life depend upon your influencing others? Is it not important to you to have others understand your point of view—to be receptive to your proposals?

## Demonstrable Facts

How many times have you wished there were some way you could impress another favorably—get across to him or her your ideas? That thoughts can be transmitted, received, and understood by others is now scientifically demonstrable. The tales of miraculous accomplishments of mind by the ancients are now known to be fact—not fable. The method whereby these things can be intentionally, not accidentally, accomplished has been a secret long cherished by the Rosicrucians—one of the schools of ancient wisdom existing throughout the world. To thousands everywhere, for centuries, the Rosicrucians have

privately taught this nearly-lost art of the practical use of mind power.

## This Free Book Points Out the Way

The Rosicrucians (not a religious organization) invite you to explore the powers of your mind. Their sensible, simple suggestions have caused intelligent men and women to soar to new heights of accomplishment. They will show you how to use your natural forces and talents to do things you now think are beyond your ability. Use the coupon below and send for a copy of the fascinating sealed free book, "The Mastery of Life," which explains how you may receive this unique wisdom and benefit by its application to your daily affairs.

## The ROSICRUCIANS (AMORC)

Scribe NVZ The Rosicrucians, AMORC,  
Rosicrucian Park, San Jose, California.

Kindly send me a free copy of the book, "The Mastery of Life." I am interested in learning how I may receive instructions about the full use of my natural powers.

Name.....

Address.....State.....



NOVEMBER 1947

Reg. U. S. Pat. Off.

## All Features Complete

**WILLIAM B. ZIFF**  
*Chairman of the Board  
and Publisher*

**B. G. DAVIS**  
*President*

**Vice Presidents:**  
**GEORGE BERNER**  
*Sales and Advertising Director*

**MICHAEL H. FROELICH**  
*Editorial Director*

**H. J. MORGANROTH**  
*Production Director*

**H. G. STRONG**  
*Circulation Director*

**Secretary-Treasurer**  
**A. T. PULLEN**

**Art Director**  
**HERMAN R. BOLLIN**

**Editor**  
**RAYMOND A. PALMER**

**Associate Editor:**  
**WILLIAM L. HAMLING**

**Art Editor**  
**MALCOLM SMITH**

### THE OBSERVATORY

By The Editor..... 6  
*A friendly chat with the editor of Amazing Stories.*

### FRIENDSHIP AND THE HORMONES

By John McCabe Moore..... 48  
*Do our hormones make our friends for us?*

### SPACE PILOT'S PROBLEM

By H. C. Goble..... 59  
*An advance look at a problem of the future.*

### VIGNETTES OF FAMOUS SCIENTISTS

By Alexander Blade..... 87  
*A short sketch of an important name in science.*

### OIL-BEARING ROCKS

By Charles Reeves..... 97  
*The scientific answer to the oil-shortage.*

### GODS OF THE SUN

By Mildred Murdoch..... 135  
*Some ancient legends of the gods of old Sol.*

### DISCUSSIONS

By The Readers..... 172  
*Wherein the readers tell us what's what.*

### IMPOSSIBLE BUT TRUE

By Pete Bogg..... 177  
*An enormous ball of fire out of the sea.*



Published monthly by ZIFF-DAVIS PUBLISHING COMPANY at 165 North Wabash Ave., Chicago 1, Ill. New York Office, Empire State Building, New York 5, N. Y. Washington Office, International Building, 1819 F Street, N.W., Washington 4, D. C. Entered as second class matter April 11, 1946, at the Post Office, Chicago, Illinois, under the Act of March 3, 1879. Subscription: In U. S., Canada, Mexico, South and Central America and U. S. Possessions, \$2.50 for 12 issues; all other foreign countries, \$4.50 for 12 issues. Subscribers should allow at least two weeks for change of address. All communications about subscriptions should be addressed to the Director of Circulation, Ziff-Davis Publishing Company, 165 North Wabash Ave., Chicago 1, Ill.

## *All Stories Complete*

- THE GIANTS OF MOGO** (Novel—70,000).....by Don Wilcox..... 8  
Illustrated by Robert Gibson Jones

There is an old argument, actually only theory, that there can be no giants because they couldn't walk—but THESE giants could do more!

- SQUEEZE PLAY** (Short—5,000)..... by Craig Browning..... 50  
Illustrated by Robert Fuqua

What would you do if you saw a string of ducks crossing a street; and then suddenly they weren't there? Yes—they were an illusion!

- AND EVE WAS** (Novelet—17,000) .....by Rog Phillips..... 60  
Illustrated by Malcolm Smith

What is the science behind the story of Adam and Eve? Maybe here is the answer to that question. At least it is logical and possible

- MURDER SOLVES A PROBLEM** (Short—4,500).....by Lee Francis..... 88  
Illustrated by William Aubrey Gray

Violent death isn't usually a solution to anything—it only poses a problem that can be your own death! But this murder solved a problem

Front cover painting by Robert Gibson Jones illustrating a scene from  
"The Giants of Mogo"

Back cover painting by James Sattlas illustrating "Impossible But True"

Copyright 1947, ZIFF-DAVIS PUBLISHING COMPANY

Member of the Audit Bureau of Circulations

We do not accept responsibility for the return of unsolicited manuscripts or artwork. To facilitate handling, the author should enclose a self-addressed envelope with the requisite postage attached, and artists should enclose or forward return postage. Accepted material is subject to whatever revision is necessary to meet requirements. Payment covers all authors', contributors' and contestants' magazine rights in the U.S.A. and all other countries in the article and/or illustrations and for publicity and promotion in connection therewith and will be made at our current rates upon acceptance. All photos and drawings will be considered as part of material purchased. The names of all characters that are used in short stories, serials and semi-fiction articles that deal with types are fictitious. Use of a name that is the same as that of any living person is coincidental.

The

# OBSERVATORY

..... by the Editor

WE'VE just had proof that the whole darn Martian space navy could tour the earth, and ten days later nobody'd believe they were here because everybody would be seeing everything from Martians to pink elephants in the sky. So, there we have the answer to you skeptics who ask us: "If Shaver is right about the caves, why hasn't somebody seen them and proved them?" The answer is, that if a dozen people came out of a cave and said they'd seen it, but didn't manage to get a photograph of it, the report would start a flood of imagination, and the real fact would be lost in the melee. Put it in your book—the flying saucers DID fly over the U. S.

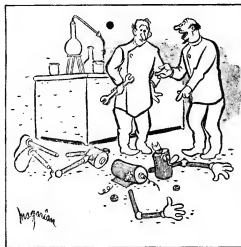
YOUR editor has made some tests to see if the scientists were right about the discs being red corpuscles in the eyeball, and we strained our eyes under the conditions required, and we stand ready to say that you can't see anything *that way*, outside of wavy lines and a sort of flicker in the sky. And we don't think Kenneth Arnold and Captain Smith can be fooled *THAT way*! Nor do we, like the rest of the insulting world, call them liars! Congratulations, you two, on being brave enough to stand up to the truth. When those saucers re-

turn, some people will remember with respect.

AND now for another proof of Shaver! He's told you about how radioactive the human body is, and you've read the scientific scoffing about how that much radioactivity would be fatal. Well, here's the latest *scientific* discovery. Dr. Aristide V. Grosse has measured radioactive carbon atoms that go "pop" in the human body every minute, and his figure is 150,000. Also, these atomic explosions release 21 billion electron volts' energy. This is far, far more than science set as the fatal limit for man! Cosmic rays cause this radioactivity in the human body, he says. Cosmic-ray origin is unknown. Could be from the sun, or from the sun and distant stars. So, Shaver is 100% right all the way! Scientists, too, have wondered how so many people at Hiroshima survived the atom bomb radioactivity. They know now! Humans are *normally* more radioactive than the bomb itself, except at very close range. And that radioactivity, which comes to us via the mysterious cosmic rays (from the sun?) causes our death in something under 70 years from radioactive poisoning! Shaver wins again. Remember when he said to try your own flesh under the Geiger counter? Well, he wasn't kidding. And you'll have to believe him now, because *science* says he's RIGHT!

FAN mail, flooding in, shows that we've run three classics in a row: Phillips' "So Shall Ye Reap," Geier's "Hidden City," and Hamilton's "The Star Kings." Thanks, you readers, for all those letters! We told you we were saving the best stuff for you, until we could get more paper. This month we have Don Wilcox's "The Giants of Mogo" and we think it's another classic. Next month we're giving you "The Green Man Returns" which is *certainly* a classic. That makes five in a row. And we've got more!

WE ALSO want to thank the "fans," those boys and girls we've been so mad at! Yep, believe it or not, but they've been very nice to us with their letters and comments in fanmags! Okay, boys, if you really are beginning to like our stuff as much as that, who cares if you like the editor! We'll keep on giving you what you want, and we'll balance it with Shaver and others. Now you can all feel happy. We apologize! Rap



"He just took his first step!"

AMAZING STORIES

# HERE'S ENTERTAINMENT... *as you like it!*



**N**OW—you may obtain one of the world's rare pleasures for your own private collection! After being banned for many years by censorship, "THE DECAMERON" is now again available in a complete, unabridged, unexpurgated edition. Nothing is too intimate . . . nothing taboo to the uninhibited pen of Boccaccio. Anything and everything goes in this masterpiece of mirth and spice. Beautifully bound. Contains over 600 pages, including many full-page, revealing illustrations. This delightful treasure of entertainment will help you enjoy life . . . make you glad you're alive. You'll never stop thrilling to it!

Examine the DECAMERON 10 days FREE—enjoy every one of its intimate, revealing pages. If you're not absolutely delighted, return the book for prompt refund. But don't delay! Only a limited quantity on hand—order your copy now!



The DECAMERON  
of BOCCACCIO

## MAIL COUPON — SENT ON APPROVAL

STRAVON PUBLISHERS, Dept. B4911  
113 West 57th St., New York 19, N. Y.

Send THE DECAMERON by return mail in plain wrapper. If at the end of 10 days I'm not absolutely delighted, I may return book for prompt refund.

- ( ) Send C.O.D. I'll pay postman only \$2.98 plus postage.  
( ) I enclose \$2.98. Send book postpaid.

Name \_\_\_\_\_  
(PLEASE PRINT PLAINLY)

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

**10 DAY EXAMINATION COUPON**

# The GIANTS of MOGO

by DON WILCOX

**The relationship between men of tremendous stature and ordinary men is peculiar at best—and on the planet Mogo, events dwarfed even the imagination—and brought death!**

Peering down at them was a gigantic man, observing them through a glass









ways trying to be friendly with everyone, even the idle tramps of the city parks. His friendliness made Faz-O-Faz feel uncomfortable.

"If I get hungry I eat insects," Faz replied. He folded his upper arms defiantly, expecting Gret-O-Gret to laugh at him.

Gret-O-Gret nodded. "Some insects are quite wholesome, as any man of science will tell you. I have been known to eat insects myself."

Faz, listening to the thump of Gret-O-Gret's feet, scoffed inwardly. But as he settled down on his dusty hilltop, he noticed that Gret-O-Gret was also watching for insects.

"He wants to show me," Faz thought. "He's straining a point to be friendly."

A few moments later Faz-O-Faz came up on his elbows with a jerk. Then he rose to his knees so that he could peer down into the river valley.

IT HAD happened. Gret-O-Gret, the man of knowledge, had lashed his hand through the air and caught—not an insect. He had caught the second of the two midget machines. Yes, Faz, was sure, for he heard the faint crunch of metal from Gret-O-Gret's fingers—just once. Then he saw Gret's eyes widen and shine.

"Did you get an insect?" Faz shouted down at him.

Perhaps Gret was too far away to hear. He hardly glanced back. He knelt down and took a reading glass from the packet of equipment he wore around his waist and began to examine the object in his hand. He bent over the glass intently. He sat down at the edge of the river and became absorbed in studying his find.

"Anything good to eat?" Faz shouted, dragging the words out loud and long.

"Nothing to eat," Gret-O-Gret called

back without even turning.

Faz yawned. Since there was no food in prospect, he had just as well take another nap. Maybe a fat bird would fly over after awhile. Spitting out a string of metal that had caught in his teeth, he nestled down in the dust and closed his eyes. It would never occur to him that his carelessness might have ruined a good-will tour from a far-off planet.

## CHAPTER II

GRET-O-GRET strode back to the city of Forty Towers. In his hand was a wonderful little treasure. He was eager to examine it in his study. His six hearts were thumping with excitement.

His four feet beat quick steps along the by-path to his home. He preferred not to meet anyone—not until he had had a chance to examine his discovery.

His discovery! All his own! All because he had meant to catch an insect for a hungry tramp!

He only hoped he hadn't damaged the shell too much. There were little creatures insides. He had glimpsed them through the window. He could hardly wait to see them under the light. Gret-O-Gret smiled as he entered his house.

The early evening light shone over the glass table of his study. The crystal walls of his porch tempered the blaze of the three Mogo suns lowering in the south. He rummaged through his insect-collector's equipment and found a cubical box with walls of screen. It was smaller than the tips of his huge fingers, but well constructed.

"Just the thing," he thought. "This will hold you, my little friends. Now if you'll just step out so I can see . . ."

He struggled with the tiny door in the ship's side. The craft was stoutly

constructed, and its sleek lines convinced him that it was built for space travel. Unfortunately, he had damaged its power mechanism when he had first caught it. But the rest of it was intact. He tried to open the smoothly-fitted door but it refused to yield. There would be an easier way to break into the ship. Carefully he applied a metal knife to the side and cut a triangular opening.

He fitted the opening to the door of his cubical cage.

"Sooner or later they'll come out," Gret-O-Gret thought. The evening suns began to grow dim. He turned on a soft green light above the glass surface of his table. He focused an electric eye on the triangular opening and attached it to a signal. Then he sat back in an easy chair and, patient giant that he was, he closed his eyes and waited. "Sooner or later . . ."

\* \* \*

Inside the crippled space ship Paul Keller and his wife were fighting for their lives. They watched the motionless shadow of the man who had turned killer. Garritt Glasgow! A trusted member of their expedition! Garritt Glasgow a traitor and a murderer!

Glasgow had seized a pistol and gone on a rampage just as the space ship was arriving on the Mogo planet. He must have timed his attacks for the moment when the sights of the new land would capture everyone's attention.

Of the five persons aboard the ship, Glasgow had shot down two in cold blood. Paul Keller would have been next on the list. But Katherine, his wife, succeeded in snapping closed the steel door to the control room, and the killer had been held at bay. A door separated them—a door and a partition with a window.

Glasgow's shadow could be seen as he waited, hawklike, for a chance to

enter. It was a terrifying situation, and Paul Keller didn't have a chance to meet it. His job at the controls, air-cruising his space craft at low altitude over the strange Mogo lands, demanded every ounce of his energies. The showdown with Glasgow would wait until this ship and the other had safely landed.

Then—*giants!*

**B**EFORE Keller had had a chance to collect his wits, a new baffling menace from the outside had suddenly loomed. Immense brown men fully five thousand feet tall were walking the paths of this new world. Keller had expected to find people—yes. But not massive, four-legged, mile-high monsters.

Suddenly one of these creatures, lying lazily on a hillside, had reached up and caught the foremost ship (the Paul Keller expedition had consisted of two space ships and ten persons). Tragedy struck with unbelievable cruelty in the minute that followed. Keller saw it all. His blood ran cold as the ruins of the other ship were spewed from the giant's vast teeth and hurled into a stream.

Many minutes later Paul Keller, stupefied by the horror of this swift fate and strangely fascinated by the power and skill of the Mogo giant who had dealt the blow, dared to cruise down toward the valley of the river that had swallowed up his other ship. His eyes, red-rimmed from too many hours of star-gazing, combed the surface of the green river. No signs of the ruins. Half the expedition had gone down.

And all the while Katherine was urging, "Careful, Paul . . . Find a landing place, Paul . . . Glasgow's waiting. He's still at the door. You've got to handle him."

Yes, Keller knew he'd have to shoot

it out with Glasgow. The wonder was that the killer hadn't tried to crash through the partition. Perhaps he, too, had seen the giants. Perhaps the sight of them had stunned him. If so, the immediate fight might be postponed. . . .

\* \* \*

"We're the giant's prisoners, Paul. What are we going to do?"

Katherine had said it a dozen times in the past hour. The blaze of the three setting suns had faded from the glass surface of the giant's table and now a weird greenish light filled the room. (Such an immense enclosure to be called a room! Keller half expected clouds to float in through the windows and gather against the ceiling!)

"We'd better make our peace with the giant, Paul. Can't you think of something? You're *so* slow."

Keller winced. His faithful young wife believed in him and was ready to follow him to the ends of the earth. But she was always distressed when his wits slowed down to low gear. The double tragedies had fairly paralyzed him. And yet Katherine, cold-blooded and quick-witted, was almost taunting him for his show of weakness.

"We could have handled Glasgow three days ago."

"I know," Paul admitted. "You warned me. You read the signs. But I couldn't believe . . ."

The shadow, formerly visible at the partition window, had retreated out of sight. The huge fingers of the giant were still at work outside the ship, trying to find an opening.

Such enormous brown fingers—and—concealed in their tips, *smaller fingers!*

The larger fingertips were like huge barrels. But sometimes their ends unknotted to reveal a cluster of intricately fitted members—a semi-circle of smaller fingers like jointed gaspipes. These

"fingers' of fingers" had unlatched the cubical cage a few minutes ago. Fine work for such a massive creature. Paul had marveled.

"Glasgow's calling!" Katherine gasped in surprise.

The sounds of scraping metal subsided for a moment and the terrorized voice of Garritt Glasgow came through the partition.

"He's changed his tune!" Paul muttered. "He's begging for a truce!"

The frenzied words echoed weirdly into the control room.

"*Let me explain, Paul! Listen to me! I won't shoot you . . . You don't understand, Paul . . . Let me in!*"

Paul didn't need his wife's warning look to suggest the answer to such an outrageous bluff. There was a snarl in his voice as he retorted:

"You murdered Lane and Siddell in cold blood, Glasgow. You intend to take over the ship. You're waiting to murder us."

"*No. No. You're wrong, Paul.*"

"You're lying like hell."

"*Please believe me. It was a mistake.*"

"You'd have had us both!"

"*No, you're wrong there.*"

This denial somehow carried more conviction, and Paul's wits weren't too slow to catch it.

"Oh. So that's it!" Paul shot a quick glance at his wife. "He meant to murder me and save you."

KATHERINE'S eyes were steely with tension. She caught his arm. "Didn't you see it before, Paul? I kept trying to tell you I felt trouble brewing everytime that man looked at me."

The scheme was coming clear to Paul Keller now. Glasgow had played a smart game throughout the long space-hop, basking in the warmth of the Kellers' friendship. But Glasgow's inten-

tion, all along, had been to seize the ship as soon as it reached one of the Mogo planets. The honor of leading the earth's first expedition to this unexplored realm would never go to Paul Keller. There would only be Glasgow, and Paul Keller's wife. And no others?

Paul wondered. Was there another half to this dastardly plan? Had someone on the other ship plotted with Glasgow? Paul would probably never know.

"Paul, help me!" Glasgow was in a frenzy of sobbing. *"It's going to get me, Paul. It'll get all of us. Do you hear me, Paul?"*

"I hear you."

*"It's sliced a hole in the side. What are we going to do?"*

"You killed Lane and Siddell."

*"No, Paul. I didn't mean to. Forgive me. I was out of my head. Give me a chance. This giant—we've got to fight it together."*

The order that Paul Keller shot back was like a cold steel blade.

*"Don't fight it, you damn fool. Listen to me. I'm going to trust you."*

Katherine clutched his arm. *"Paul!"*

He motioned her aside. He was gambling on something more than his own slow wits. There was that wild terror in Glasgow's pleadings. Paul called through the partition.

"Are you ready to take orders, Glasgow?"

*"Anything you say, Paul. Anything!"*

"All right. Get rid of your pistol. The three of us are going out together to meet the giant."

### CHAPTER III

IT WAS an historic hour. The earth and a far-off planet of the Mogo system were beginning to understand each other.

"What curious little people," Gret-O-Gret kept saying to himself.

It amazed him that such small creatures could possess enough intelligence to build ships and explore the world of space. What a contrast between Mogo's race of giants and these almost microscopic visitors, smaller than Gret-O-Gret's fingertips.

The giant edged closer to his glass table. He adjusted his eye glasses for a magnified view of the little faces. And the finely woven goods of their clothing. And the dainty shoes that covered their feet. He was fascinated from the moment they emerged. They stepped cautiously. Three of them.

The first was dressed in a black silky robe (Garritt Glasgow) and his little bird-like face was tense and drawn. His eyes flashed nervously. He seemed to be taking his directions from the other two who followed.

They were talking, now, and the black-robed one was evidently told to bring something out of the ship. When he came out again he was carrying a bulky object.

He laid the object down on the floor of the cage. Then Gret-O-Gret saw that it was another similar creature—dead.

The three living ones bent over it.

The second of the three must be a female, Gret-O-Gret decided, for her form was softly curved. Her face was smooth and pretty and her brown hair hung to her shoulders. She wore bright colors—green and tan. Gret-O-Gret thought her a very dainty, fragile thing. He could catch the thin metallic notes of her voice. Again he sensed the tension among these little people.

The female kept close to the third member of the trio. He was the tallest and broadest of them and unquestionably the leader.

"How proud!" Gret-O-Gret said to

himself, admiring the square shoulders, the high head, and the air of authority in the man's bearing. He was dressed in a trim tan outfit. Above his high forehead the flowing locks of hair gave him a princely appearance.

This one had given another order and the nervous little man whirled about in his black robe. He went back into the ship and carried out another object—*another dead companion!*

The two corpses were laid out side by side on the cage floor.

THE smaller man, obeying another order, brought white sheets of cloth from the ship and spread them over the two bodies. Frequently the glances from the three living ones shot toward Gret-O-Gret, as if to question his reaction to their ritual. He watched without moving. Now the three stood with heads bowed, and the leader's low voice sounded with many words. Once the nervous little man turned, flung his hands to his face, and started to walk away. But the leader barked at him and he swished back to the circle and stood like a statue.

"A strange funeral service," Gret-O-Gret thought. "They are putting away two dead companions. I'll have to help them find a suitable resting place."

Then Gret-O-Gret's great heart began to bleed for his tiny friends.

"These deaths were my doing," he thought. "I must have crushed them when I seized their ship. Too bad."

He put his eye glasses aside and folded his upper arms over his face.

"How can I ever make up to them for their loss?"

Gret-O-Gret was deep in thought when the visitor's signal rang and his cousin, Mox-O-Mox, came in.

It was a bad evening after that. Of all his relatives, Gret liked Mox-O-Mox the least. Gret's first impulse was

to hide his newly found treasures. But there wasn't time.

"I found them," Gret-O-Gret explained with embarrassment. "No, *don't* touch them, Mox. Let them alone. You don't understand them."

Already, Gret knew, his own understanding of these little other world creatures was deep beyond Mox's comprehension. Mox was a man of much greed and no sympathy.

Mox studied them awhile in silence. Then, "Give me one of them."

"Certainly not."

"I need one to carry in my shoulder packet. My friends will be amused."

Gret answered with a negative gesture and turned the subject. Before Mox left late that night he mentioned the matter again.

"If you won't *give* me one—very well, I'll buy one."

"They're not for sale."

Mox cursed. "Then I'll win them from you in a game of Zanops."

"You know I never gamble."

Outside the door Mox-O-Mox turned back angrily. "You're a stingy one, Gret. But I'll have one of those playthings yet. I'll get one."

Many days passed before the three earth people were to see Mox-O-Mox again.

The days were not ordinary days. They were almost week-long days by earth standards, and this complicated the many problems that beset the earth folks in adjusting themselves to their life with a giant.

The giant was trying to be a kind and gracious host. There was no question about that. Some of his kindnesses were so gigantic that they were amusing.

He understood that they needed water, so he set before them an open tank of water that would have been suitable for a hundred horses.

He sprinkled pieces of cake on the cage floor as large as automobiles.

However, he was more practical when he devised commodious living quarters for them only as large as a racing stable—only a little too roomy for comfort, Katherine thought, considering the fact that one of their trio was a cold-blooded murderer. The house sat high on one of the giant's shelves—a perfect safeguard against escape. Its glass roof was removable, so that the giant had no trouble reaching in and gathering them up in his fingers whenever he wanted them.

"Anyway he gave us privacy from Glasgow," Paul observed, for the house contained certain separate compartments that could be locked from the inside.

Quite naturally, Garritt Glasgow was the Kellers' worst problem. They mourned the loss of their friends, Lane and Siddell. From the porch of their shelf-hung house they could look out through the vast barn-like room to a gigantic potted plant outside the window, in whose earth their ill-fated friends had been buried.

They likewise mourned the loss of the other ship. It was demoralizing to Paul Keller's high spirits that his expedition should have met such complete ruin.

"But there is still a chance that we might get back to the earth," Katherine would say. "These giants have space ships."

"I can't imagine a ship big enough to hold our genial host."

"I tell you I saw one. It was as big as a mountain, but mountains don't fly. And it wasn't a cloud."

Later, Paul Keller saw such sights for himself.

**H**E SAW cities and bridges and highways and water towers and

trains of open cars—all built to the colossal scale of Mogo men.

He and Katherine huddled in one corner of a flimsy sack, slung over the giant's shoulder, and peered out through the loosely woven fabric to see the strange world of giants. Glasgow was there, too, edging as close to them as he dared.

"What enormous towers," Glasgow said. "They appear to be made of glass."

"Yes," said Paul.

Katherine said nothing.

"Did you notice the fantastic pattern of lights and shadows in the streets?" Glasgow asked. "With three suns—and buildings of glass . . ."

"It's a giant's wonderland," Paul said.

Katherine said nothing.

That was how it went among the three of them. Glasgow was outdoing himself to be the friendly, jovial companion, as if to erase their memory of his crimes. Paul was civil to him, seemingly trusting him, as if confident that Glasgow wouldn't dare make a false move.

But Katherine was icy, and seemed to be carrying invisible pistols in both hands. She seldom spoke, except when the great rumbling voice of one of the giants sounded. She was beginning to learn the Mogo language. Mogo words were exciting. Especially the words of their own host, whose name they had learned to be Gret-O-Gret.

"He *is* trying to talk to us," Paul would say.

"He's trying to talk to *you*," Katherine corrected. "You're the one he likes."

It was strange, Paul thought, that the giant should make any distinction among his three midgets, yet it did seem to Paul that some of the more obvious favors had come his way. His



wife taunted him because he was so slow to catch Gret-O-Gret's meanings.

"M-A-Z-Z . . . K-O-L-L-M . . . RE-E-E . . . M-A-Z-Z!"

It was a low, breathy roar, and from the wide spread of Gret-O-Gret's mouth, Paul knew he was trying to say something friendly.

"Get it?" said Katherine. "He says we're going visiting."

Paul wondered. Maybe Katherine wasn't bluffing. Maybe she was beginning to understand. He glanced at Glasgow. That scoundrel assumed a wise expression, as if he, too, were catching the drift. It stung Paul. For all Katherine's hatred of Glasgow, there was danger that little things like this would knit a bond between them. Paul was slow. He couldn't help being slow. Again he drew a determined breath. He must try harder to catch Gret-O-Gret's meanings.

It was at once thrilling and dizzy, being carried along swiftly, four thousand feet above the ground, clinging to the loose weave of the cloth bag. These excursions were a part of Gret's treat to his little guests. He was showing them his world.

"Don't look down," Glasgow said. "It's dizzier than a parachute."

Nobody answered him.

Gret-O-Gret took long strides, his four legs working in easy rhythm. Whirling clouds of dust hovered over each foot track. Paul glanced back over the trail and tried to imagine what it must feel like, stepping over the countryside in quarter-mile strides.

A thunderous shout rolled up through the hills. Paul looked back to see that another Mogo man was overtaking them.

The new giant's roar was unfriendly. Paul recognized the visitors who had come into Gret's home and shouted across the glass table on that first

dreadful night.

Gret stopped. The landscape seemed to be still whirling, as the cloth sack swung idly. Katherine clung to Paul's arms. "We're in a bad spot."

"What are they saying?"

"I can't tell," Katherine said, "but I know it's trouble."

"NO, Mox," Gret-O-Gret said coolly.

"I wouldn't let you or anyone else have these little creatures for pets. They're not pets. They're people. They're not as large as us, but for all we know they may be as intelligent. They may even be as powerful."

Mox-O-Mox gave a mighty laugh. Then his great brown face reddened with anger and he pressed his four fists against his shaggy sides. It had been a mistake ever to show him, Gret knew. Mox was so envious and his feelings were so sharp. Now he was going into a burst of bad temper.

"Are you trying to tell me that those little insects are as smart as I am?"

"I didn't say that. But I do say they're smart enough to deserve our respect. I need to know them better—and I intend to."

Mox cooled a little. He began to ply Gret with questions, and Gret felt obliged to say more. He glanced down at his little guests, wondering whether they could understand any of his talk. They were looking up at him, apparently listening with interest, perhaps looking to him for protection.

"I've discovered," said Gret-O-Gret, "that they came from another system of planets. The charts from their flying boat are quite revealing under the microscope. I've studied them for many hours. At last I know the direction they came from. I know the distance. *I know the very planet.*"

Gret folded his upper arms. Anyone but Mox would have appreciated his

understanding and sympathy for the little creatures. He had made a good case for them. Any reasonable Mogo would have been open-eyed with respect for them. But Gret saw at once that he had spoken too freely. His words brought a dangerous smile from Mox.

"Lend your pets to me."

Gret stiffened, too outraged to answer.

"If you won't lend them," Mox said, "I'll take them by force."

"You wouldn't dare."

"Are you sure?"

Mox crouched forward and swung an upper arm at the cloth sack, at the same time uncoiling his "fingers of fingers." Gret drew back. But the claw-like fingers caught the side of the sack and tore it.

Gret caught a glimpse of the creatures falling. Mox was swinging a fist at his jaw, and the little people were falling into the cloud of dust.

Gret swung a lower arm through a swift arc, fingers - of - fingers outstretched, trying to catch them. But Mox's blow had already staggered him. He lost balance and began to fall backward. His tiny guests would drop four thousand feet through the roiling dust clouds and be stamped underfoot.

#### CHAPTER IV

THE fighting giants never knew that they served as a battleground for a far more deadly fight. The little creatures, who had been lost in the fall, were fighting as they went down.

Paul Keller's wits were a quick jump ahead, for once. He and Katherine and Garritt Glasgow were falling like three drops of water out of the same spigot. Down through the cloud of dust there appeared wide streaks of orange. That was Gret-O-Gret's sash.

He was Paul's one hope as he fell.

The giant's body swung forward a trifle. One of his great arms swooped down as if to catch his falling guests, but the dust had engulfed them. The great arm missed.

However, the vast folds of orange cloth were there, all at once, breaking their fall. That was Gret-O-Gret's midsection. They were still more than two thousand feet above the ground.

Katherine slid against the soft orange surfaces and suddenly caught on.

Paul saw, and his hopes leaped. His arms burned as he slid over the warp and woof, and then his hands caught and clung. His body slipped into a fold of the sash that gave him footing. He chased along the orange path—a ledge that often broke under his weight. Katherine was only a few feet away, clinging for dear life. She was almost above him. He looked up to see her slip her arm through the weave for a sure grip.

Then Glasgow came tumbling down over the surface toward Katherine. He snatched at her arms, missed, caught her by the feet. Paul saw the light of terror in his eyes as he glanced downward.

Katherine's body jerked convulsively. She tried to kick free. A fold of the sash sagged, and all three of them slipped downward, clinging for dear life.

"Let her go," Paul yelled. His voice was lost in the uproar.

"Help me! In the name of God —" Glasgow's false wail was awful to hear, but Paul saw the murderous look in his eye. Hanging to Katherine's feet with one arm, he seemed to be reaching to Paul. His hand was folded back and there was something in it. As Paul edged closer he saw the knife.

"Let her go!" Paul shouted. But

his command went flat. Glasgow was swinging at him. The blade flashed an arc through the dense air. Paul's free hand struck out to meet it. He caught Glasgow's wrist and they struggled. He felt the cold steel slit a path along his forearm.

So the traitor had managed to keep a hidden weapon, waiting for a moment like this! That was all Paul could think of while he fought.

Katherine was screaming, "Let go, Glasgow, or I'll fall! *I'm slipping! Let go!*"

The tug on her wrist must have been unbearable, with Glasgow twisting and writhing. She tried in vain to kick free.

The blood streaked down into Paul's shirt and he saw a smear of red painted across the orange of the giant's sash. Now he held Glasgow in a deadlock. But suddenly the great heaving body of the giant lurched to one side. Paul scrambled to hold fast. All his advantages were torn away from him. He started to fall. His foot caught in the weave of the goods. Again he found support and struggled to bring himself upright. He looked up. Glasgow's treacherous face gleamed in anticipation of triumph. The traitor was still swinging from Katherine's feet . . . swinging toward Paul with the knife ready.

Katherine writhed, screaming that she was going to drop. She and Glasgow would both fall to their deaths if he didn't throw away his knife.

Glasgow hurled back an insulting taunt as he tried to swing closer to Paul. "Stop your pretense, woman. You don't *have* to save your husband. Don't worry. I'll make quick work of him . . ."

"*I'm letting go!*"

"Don't!" Paul cried. Like a trapeze artist he suddenly swung his body up-

ward. His legs cut an arc toward Glasgow. The kick landed on the spine. Then Paul ducked, for the knife had slipped out of distended fingers and was falling. Falling toward him, flashing its threat of death.

Only the movement of Gret-O-Gret's body saved Paul in that moment. He was jerked aside, and the knife plummeted harmlessly down through the cloud of dust.

GARRITT GLASGOW was clawing frantically for a new hold on the sash. The blow on his back had released his iron grip. For an instant Paul was sure he would fall to his death.

The capricious surfaces to which the three earth people were clinging were at once moving downward. The giant Gret-O-Gret was falling backward, down and down and down . . .

The great mounds of elastic flesh cushioned the fall for the tiny earth men. The huge body shuddered and came to a stop. Gret-O-Gret had been felled, and the voice of Mox-O-Mox boomed his mocking triumph.

The three earth people instantly slipped into the dark, deep folds of the orange sash. Paul caught his wife's hand and pressed it as they scurried on through the orange dimness. If he lived to be a thousand years old, Paul knew he would never forget Katherine's loyalty of this hour.

"He went this way," Katherine was saying. "Come on, you've got to kill him. You can't let him live another minute. . . . Why Paul, there's blood all over your shirt!"

The fight between the giants was unfair from the start. Not because Mox was a man of far greater physical prowess than his cousin. Rather, because Gret-O-Gret was trying to protect his little friends. Were they be-

ing trampled underfoot? Mox gave him no chance to rescue them.

Presently Gret-O-Gret was down on the ground, clutching his head in bewilderment. He began to mumble, not knowing what he was saying.

"Would you like to know about my discovery, dear cousin? Of course I will tell you everything."

Mox-O-Mox knew that Gret was raving. This was his chance.

"Where did they come from, Gret? Are there more to be found? Do you think there may be thousands—enough that I could use them for bait when I go fishing?"

"There must be thousands," said Gret, his eyes wobbling in his head. "I will tell you everything, dear Mox, if it will make you happy." And Gret began to explain where the earth could be found.

Mox listened eagerly. He looked both ways to be sure no Mogo man was coming down the trail. Satisfied, he pried into the shoulder packet which Gret always carried. Sure enough, there were the secrets—a carefully written packet of notes.

"But you mustn't go to this planet," Gret was saying. Mox saw that he was in danger of awakening.

"I'll go there and help myself," Mox muttered, pocketing the notes.

"No!" Gret-O-Gret barked. "It's my planet." He was coming to his senses. He sat bolt upright. "It's my planet, I tell you. I've already registered it with the courts as *my property*."

Mox was momentarily stopped. "You've *registered* it?"

"Yes, and if you steal as much as one clod of dirt from it, I'll have the courts of Mogo on you."

"Ufff!" Mox made an ugly face. He had already made an unfavorable record for himself with the courts. He

didn't want any more such dealings.

However, Mox's thoughts flashed back to a long forgotten incident in which he had successfully evaded the law.

(It had happened years ago. The courts had proved that Gret owned a certain forest on a neighboring Mogo planet—a piece of property which no one had ever seen. Mox had flown to the land and destroyed half the forest before Gret had got his first glimpse of it. And Gret had never been able to prove a thing.)

"Has anyone *seen* this new planet that you have registered as your property?"

Gret rubbed his eyes and swept his upper hand over his bruised face. "No. Not yet. But I'll soon go—" He hesitated as if it had begun to dawn on him that he had been talking too much.

"Don't be in any hurry," Mox said. He struck Gret another ugly blow and bolted off toward the city of Forty Towers as fast as he could go.

When Gret came to his feet groggily, he began to search the beaten ground where the fight had taken place. Search as he would, he could find no trace of his little guests from a far-off world.

"Poor things," he mumbled over and over. "Poor little things."

Suddenly he straightened. An awful question flashed through his mind, and all at once his six hearts were pounding.

*What would Mox do next?*

## CHAPTER V

THE poor old earth never knew what hit it!

A hundred exploding atom bombs would have been only a faint rustle of wind in comparison. A hundred thousand would have been a little more like it. Or a million atom bombs? Well, the fact was that five million

atom bombs striking simultaneously would not have equalled one Mogo bomb.

That was why the giant Mox-O-Mox had such an easy time of it. He had only to find the right planet, spiral around it two or three times at high speed, and unload a few dozen Mogo bombs. The earth's gravitation did the rest. It was enough to make the old planet fold up and quit.

That was all Mox-O-Mox wanted. He had accomplished his spite work in one swift stroke. He flew out into the highways of space and headed for home. Or if he chose, he would coast around and take in the sights awhile.

*The surface of the earth was literally blown off.*

Cities and harbors, villages and farms were obliterated. Mountains and deserts and oceans and lakes all leaped off the rocky crust and showered their particles into the atmosphere. One moment—sunshine over the broad and comparatively peaceful land. The next moment—a skyful of black bombs plunging toward the earth. Another moment—the blinding white flash of disintegration. And after that—

But who was left to see what happened after that?

\* \* \*

George Hurley, a husky young space pilot who tipped the scales at two hundred and forty pounds, was trying out a new ship on a round-the-moon hop when it happened. He had circled the moon eight times to observe the performance of his light-weight craft at varying speeds and varying gravitational stresses. He had been pleased. Now if Judy Longworth were only here to share this maiden voyage, he thought, it would be perfect.

Judy Longworth was one of the most celebrated women space pilots in America. He had known her for almost two

years—by television. He had discussed his plans for this very ship with her before she left on the Paul Keller expedition.

Talk about your good-looking gals! M-m-m. Judy Longworth, dressed in her space suit, was as beautiful as any of your famous Hollywood queens. George Hurley carried six pictures of her in his billfold. As soon as she came back from the Paul Keller expedition he was going to have a date with her.

His first date! That just goes to show how busy a guy can be, George thought, when he gets bit by the space-flying bug. In spite of all their television visits, he and Judy had never met face to face.

"I could name this space flivver Judy," George was saying to himself as he throttled toward the earth.

The space flivver suddenly trembled, as if it had crossed a gravitational "bump."

That was strange. The dial jumped as if the moon had been derailed from its regular path. A freakish thing. George couldn't understand it. He stared through the window above the control panel. A flare of blinding white light blazed from the earth's surface! An explosion! A whole continent of explosions! The earth was incandescent! George slapped his hands over his eyes. He swung the green filter screen over the window and gazed again. What a spectacle! Powerful and beautiful and terrible!

Automatically he had let up on the throttle and turned to his radio. What was happening? What was the meaning? How could the earth be suddenly turned into a hell of flame?

"A nova!" he thought. "It's bursting forth into a star like the sun! It must be!"

But his theory swiftly folded with the fading of the earth's sudden burst

of brilliance. A nova continues to burn through years. This blinding flare had come and gone in a matter of minutes. It dwindled to yellow flames . . . a sphere of black smoke streaked with yellow flames.

He tried continuously to contact someone by radio. His efforts were futile.

"The earth has blown up," he was saying over and over to himself. "The earth has blown to hell!"

Why? How? What power greater than the power of man had chosen to strike the ambitious planet with such a deadly hand?

"Judy!" he was muttering almost unconsciously, "Judy. You should see this. If you were here, you might know." (He had fallen into the habit of glorifying Judy in all of his solitary thoughts.)

HE STOPPED short. What if she *had* been on the earth instead of far away on the Paul Keller expedition? Suppose she had been at her favorite haunt, the Mid-Continent Telescope. Why, the whole Mid-Continent spaceport must have burned up instantaneously. And the three Atlantic ports—the California port—the Mexico City port—

Slowly his imagination reached out to a whole sphere of question marks. There was no telling whether *anything* would be left on the whole globe. He was breathing fast, cutting along through space at high speed.

Now he saw the mushrooms of smoke billowing outward all around the earth. Presently, all he could see now was a silvery white cloud hanging there in space, highlighted by sunshine. The flames were lost within.

The dark fog of powdered earth spread wider and wider. Gradually the sullen red fires within were ob-

scured by the growing sphere of blackness.

Hours later it was still spreading. Some of the earth's substance, George guessed, would float out into the gravitational currents of space and be forever lost.

"Where's a guy supposed to land at a time like this?"

George's voice sounded strange to his own ears. He was a space man with no home base. He tried continuously to reach someone by radio. It was something to do, at least, while he pulled his thoughts together. Where to go? What to do? He didn't have fuel enough to carry him to Mars or Venus.

"Judy, what would *you* do?"

He glanced at the radio dials, trying to force some answer by sheer willpower. But no such miracle occurred.

Many hours later the fluffy black blanket began to thin. George Hurley nosed his ship toward what he hoped would be the continent of America. If the instruments hadn't kept track of time for him, he would have lost all record of the days that followed.

He kept circling the earth—into the daylight, out of it, into it again. It was muggy daylight, at best. The cloud from the explosions filled the air to a height of two hundred miles or more. Fortunately, his fuel supply stayed with him. He was determined to find some sort of landing place. He explored any areas where the heat was less intense. Somewhere he might find a strip of the earth's surface that had been left undamaged.

Finally he spotted a green valley deep within steep banks of mountains. Thanks to a torrent of rain, it might be cool enough in this area to land. His instruments told him that this protected spot had been a part of South Africa.

Air-cruising back and forth through

the narrow valley several times before landing, he was heartened to make a discovery. *Not quite all* of the earth's people had been consumed. At least *one* person had lived through it.

He flew low enough to see her—a woman in a white dress who ran out into a certain clearing each time he flew over, waving at him frantically. He wished she would run back out of the way so he could land with safety.

"I wouldn't want to bump her off," he thought. "Human life is much too scarce. Well, here goes for a landing."

## CHAPTER VI

THE girl in the white dress was walking out from the edge of the clearing when George alighted. She sauntered along the side of the ship, as if inspecting it, and he fancied that she gave a sniff of disdain because it was so small. It was no larger, in fact, than the body of a twelve-passenger airplane. Smallness was its advantage. But she probably knew nothing about space flivvers.

He began to putter around the ship with a polishing rag. Its copper-colored lines took a high polish.

"Where'd you come from?" the girl asked.

She was at once bold and a little scared. George wasted a second glance on her. Somehow he had guessed she would be freckled and homely and she probably giggled like the high school girls back home. Thank goodness, she spoke English.

"Where's your folks?" he asked, turning to stare at her. She wasn't so homely after all, he thought. And the freckles weren't really conspicuous. Her blue eyes were meant to be gay, but she had been doing a lot of crying.

"Where's *your* folks?" she countered with a tinge of irony. "Where's *anybody's* folks? There's nobody alive since last week. You're the first live one I've seen. Where'd you come from?"

"Near St. Louis, originally."

"Is there anybody alive around St. Louis now?"

"Hell, no, there isn't any St. Louis."

"That's what I mean. I've been trying to radio out ever since the big fire-storm struck. I can't get a thing." She walked on around the ship. George followed her.

"There's no Chicago or New York, either," he said.

"I was numb for a couple days after I buried my parents. Buried them in a ditch. And the servants. And my pet dog. I walked around just numb."

"You can't even tell where the cities were," George said. "Or the mountains or oceans or anything. I went around the earth dozens of times. It's just a different earth."

"It came so fast, nobody had time to do anything. I saw two awful flashes in the sky over that way, and then it hit here and everything went out. Especially me. I don't know why it didn't kill me, like the others."

"It's just a different earth," George repeated, walking back to the ship's open airlocks to deposit the polishing rag. "You've no idea. When I landed here I thought this was a part of Africa—until you stepped up and started talking English."

"It is Africa. Or was. It was the Banrab Valley. My brother owned a mine here and the family flew over to visit him—all except my older brother. He's on Venus—I hope!"

"I'll bet the Venus astronomers got a pretty eyeful. Maybe they can figure out what did it. I was on my way back from the moon in this new ship—" he

glanced at the gleaming copper strips that lined the body. The girl didn't seem to notice what a slick new model it was.

"I was supposed to get back to New York for school next week. I've already paid my tuition."

"Tuition!" George grunted. This girl was too young and frivolous to realize anything, he thought. Judy Longworth should be here. Judy! She'd be coming back some day this summer when the Paul Keller expedition returned. At least there'd be a few people on earth, then!

George's next thought made him shudder. Just now he and this New York girl might be *the only two living persons on the earth!* He gulped and edged away from her. It was a terrifying idea, and he certainly hoped *she* wouldn't think of it.

But it was already on the tip of her tongue.

"Isn't it strange?" she was saying. "I've always thought there were *too many people* in the world. Living in New York you come to feel that way. And you don't think anything will ever change it. But all at once this fire-storm hit, and now, there's only two of us." She paused and there was an uncomfortable moment of silence. Then, "That fire-storm—what do you think it was?"

GEORGE faced her again, liking her a little better. She had sidetracked the awkward thought. What *was* the fire-storm? That was a man-sized question. Did she think he knew?

"I've got some theories," he said, and he might have gone on, but she leaped back to the dangerous topic.

"If everyone has been destroyed but you and me—"

"Huh?"

"I mean *if* we're the *only two people*

*left on this earth—"*

George shot a suspicious glance at her. She was looking off into the afternoon sky, frowning with deep thoughts.

"I mean it's a responsibility—for us—"

"Stop it!" George snapped. "I won't have that kind of talk." He whirled away from her and stepped into the airlocks of his ship. She quickly followed him, trying to catch him by the sleeve.

"What's the matter?" she cried. "What did I say that made you mad?"

He tried to keep her from coming into the ship, but he backed away from touching her. "I'll have you know that *I've got a girl*, and she'll be coming back to the earth one of these days. Get it through your head that I'm not having anything to do with anyone else."

The girl whirled him around to face her, and her blue eyes flashed with anger.

"Who said anything about being your girl?"

"You practically said it."

She gave a taunting laugh. "What a terrific egotism!" She stamped down the steps as if to exit through the air locks. She turned and blazed at him. "All I said was, we'll have responsibilities. We'll have to get things going. Otherwise, when my brother comes back from Venus—and the Paul Keller party returns—and other earth folks come back from other planets—what are they going to find? We've got work to do."

George caught the time from his wrist. "That reminds me." He bounded up to the control room. "I'm taking off," he yelled back. "You wait here. I'll find you when I come back. There's a Venus plane due in and they won't know where to land. My radio won't reach unless I go out. I've got to guide them in."

The dials showed the air locks to be



in the clear, so he supposed the girl had alighted. The locks swished shut, and the atomic motors roared as he taxied to one end of the clearing. A moment later he plunged skyward.

Within a few seconds he set the speed and started the automatic radio calls. That was all he could do, for the present. There might be minutes or hours of waiting.

The girl was still on his mind, and he found himself mumbling aloud.

"What a funny kid . . . I didn't even find out her name . . . or her nationality . . . not that it makes any difference—"

He was stopped short by the sounds of tiptoeing in the corridor forward. A familiar voice answered his questions in mock schoolgirl manner.

"My name is Anna Pantella, and I'm an American."

"Well, I'll be damned! Who invited you to come along?"

"And I happen to be half French, too."

"I'm not interested."

"And half English and half Italian."

"That's three halves," George said dryly, making up his mind to ignore her.

"And the other half is misbehavior. That's what my grandfather in New Jersey always told me. . . . You don't like me, do you?"

George gave her a savage look.

"Do you, Big Boy?"

Since high school days George, weighing over two hundred, had been called Big Boy. And he had liked it. The fact was, he'd loved it. But this girl had no business calling him his favorite name. She had no business being here.

He snarled at her, "Why don't you get a broom and a dust cloth and go through this ship and make yourself useful? Can't you see I'm busy?"

"Okay, Big Boy. Anything you say."

George cleared his throat and was

about to add, in a hard voice, "And *don't* call me Big Boy!" But he let it pass. Just then the signal from the earth-bound Venus Express sounded in his receiver, which was his cue to get busy.

## CHAPTER VII

THE incoming Venus Express was an hour late. The space observers at the Venus port had seen the explosion and had tried for days to communicate with the earth. No luck. A rumor of alarm began to spread. At the hour for the departure of the Express, last-minute passenger cancellations were still coming in.

Now, as George Hurley made radio contact with the approaching ship, it reported only eight passengers.

George's courtesy messages were eagerly received. After several minutes of excited exchanges of news about the great disaster, the Express took the location of the Banrab Valley as a make-shift landing field. George gave a relieved sigh and headed down toward the stratosphere.

Anna Pantella was at his shoulder.

"You did it perfectly, Big Boy. You're smart, aren't you?"

"Any pilot would have done it. Everything for the common good at a time like this. Which reminds me, we'd better get back."

"You haven't told me about your theories."

"What theories?"

"On what made the earth explode."

George eased his touch on the throttle. "Well, one theory is that it was all a freak of nature. Something that's been in the cards for billions of years. It's been all this time coming, and finally—well it got here. All at once."

"What got here?"

"The big blow-up."

"But *why*? What kind of something was it?"

George tossed his head with an air of superior knowledge. "You wouldn't understand if I told you. It's all mixed up with astronomy."

"I know all about astronomy," Anna Pantella declared.

"I mean the mathematics would get too deep for you. You wouldn't follow."

"Mathematics is my specialty," she said lightly. "I'm a regular walking calculator."

"Well — ah — to begin with —" George had begun to perspire. He glanced at his watch. "Great guns! We've got to get back. The Express will arrive and find nobody home. We've got to get there ahead of them."

"Why?" Anna asked. "You gave them the location. I want to spin around the earth to see the sights before we go back."

"Nothing doing."

"Just once, please . . . please, Big Boy."

The touch of her fingers on his arm made him writhe with anger.

"What's the matter?" she asked. "Am I poison or something? I've never been considered exactly repulsive. In fact, my class voted me the most popular girl. Maybe you're afraid of girls. Is that it?"

George Hurley set his jaw. "I've already told you how it is."

"You're sure touchy."

"Maybe so. But if the Venus Express arrives ahead of us, and those folks see you and me get out of this ship *together*—right away they'll get ideas."

THEY flew into the earth's atmosphere. The ship had coasted gracefully into its air cruising speed of 810 m.p.h. It skimmed through patches

of sun-edged clouds and leaped over mountains of steam that oozed up from ugly breaks in the earth's crust.

The ever-changing scenes were fascinating, George had to admit. He swung wide over what had been the continent of North America, taking advantage of the afternoon sunshine. He wouldn't mention to Anna that darkness would make a landing on Africa difficult for the next eight hours.

"The Venus Express will stall for time, too," he thought. "Everyone aboard will want to see more of this torn-up land."

So thinking, he cut his speed and dipped closer to the surface. His female passenger had gone to the small observatory at the end of the companionway. He could see her turning the telescope back and forth, taking in the sights. It was a spectacular show and it might have gone on for hours if Anna hadn't called, "They've landed!"

"Landed? Who?"

"The Venus Express."

George looked back at her, wondering what the gag was. She hadn't taken her eyes off the instruments.

"You're seeing things," he said. "I surveyed this strip of land three days ago and there was no chance of a landing. Besides, we're ten miles too high to see a space ship on the surface. All you'd get through the telescope would be a speck."

"It's a space ship, all right," Anna Pantella repeated stubbornly.

"You're dizzy," George shouted back. "It must be a cloud. Do you know how to apply the dimensions gauge to an object? Lever C. On your right."

"Sure, I know."

"All right, I'll swing back over that strip and you apply Lever C and catch the dimensions of your space ship."

George cut the speed still lower,

banked the ship and retraced his course.

"Okay, what do you get? A cloud or a mountain?"

"It's a space ship," said Anna.

"How long is it?"

"Thirteen miles . . . Gee! *Thirteen miles!* I must be seeing things."

"Huff!" George snorted. He touched the accelerator and the ship leaped so quick that Anna bumped her head against the rounded rear windows. The next thing he knew, she was stamping into the control room with angry tears in her eyes.

"All right, you can be mean if you want to," she said. "But I *saw* it and I measured it right. I saw someone unloading the ship, too. The big box he unloaded was over a half mile long."

"Whoever heard of a box a half mile long? Why, that would be enough surface to land a space ship on!"

The girl nodded slowly, challenging his eyes. "That's exactly what I was thinking. If my brother from Venus was here with his space ship, *he* could do it."

## CHAPTER VIII

THE great orange and purple eyes of the giant Gret-O-Gret were moist with tears. What a disappointment! The planet he had come to claim had been ruined.

He had flown his thirteen-mile ship around the planet twice to survey his claim. That had been enough. He knew what had happened. The raw, steaming mounds of earth, the crushed cities, rivers and lakes flooding over the shaken land seeking new beds, all growing things blasted and beaten to death—the whole conglomerate picture added up to one awful fact.

"Mox-O-Mox has done it!" Gret-O-Gret moaned.

The heat of revenge swept through Gret. A panic of murderous desires seized his six hearts.

It was then that he landed his ship. He must get control of himself. He must have a few hours of rest. Time to absorb his inner storm. Time to weep.

He landed as the single sun was setting. He went through his motions automatically, walking around in the ship, peering out through the windows, finally opening the air-tight door for a breath of the earth's atmosphere.

"Explosives," he muttered to himself at the first whiff. His sensitive nostrils knew the fumes of the more destructive Mogo bombs.

He took a few steps outside the ship. He was breathing too fast. Was it his anger, or was the air of this land too thin for his lungs? Or was it a faint odor of death that repelled him?

He walked back into the ship and placed his hand on a box.

"Gifts for the little people," he said bitterly. He lifted the box and carried it outside. He might have placed it on the highest hill as a magnet for the little people of this land—but all of that vision had flown. (In his plans, he had delighted in a vision of little people thronging up the hillside, each person accepting a gift of food from far-off Mogo land as a token of friendship.)

He was breathing hard. He set the box down near the ship and returned, heaving noisily. He left the door slightly open so he could get used to the strange air gradually, and he readjusted the ship's atmosphere control to meet the emergency of incoming air.

Then, breathing easily once more, he bowed his great head and wept a few giant tears. He mumbled softly to himself as he remembered the photographs of this beautiful land he had

studied through a microscope, when he had examined the contents of the insect-sized space ship. He thought of his three little guests and how they must have fallen to their death during his fight with Mox.

If he had not been weeping and mumbling to himself, he might have heard the faint whine of an approaching space flivver. But at that moment something strange happened near his fingertips.

A little flash of fire showed against his brown shirt. Just a spark. Then it was gone.

He watched with wide eyes, thinking it would come again. The only unusual thing he saw was a teardrop that had caught on his orange sash.

Then he saw. *Two little people!* The two little friends he had been weeping for! They were climbing down the side of his shirt. They were running toward the teardrop. They were clinging to the weave of his sash, bending to the tear drop—*drinking!*

"Careful, Paul!" Katherine had cried as the two of them climbed down the giant's shirt toward the tear drop. "Don't make me fall. I'm too weak to fall."

"He sees us!" Paul said. "The pistol shot got his attention. If he'll watch us for a moment we'll make him understand."

They clambered to the edge of the tear drop, a twenty-foot pool of liquid soaking into the orange cloth of the giant's sash.

"Oh, Paul, do we dare think it? Suppose it's poison!"

"He's watching us, Katherine. He's recognizing us. That's all that matters."

They pretended to drink. The liquid was thick and salty to their lips. They turned to look up into the face of the giant, bending toward them. His or-

ange and purple eyes hovered only a quarter of a mile above them, looking down with compassion. He began to murmur in soft tones, punctuated by curious gurgles of surprise.

"He can hardly believe we've come to life," Paul said, helping Katherine up from the muddy tear pool. "He'd be amazed if he knew how we've managed to keep alive in his clothes all this time."

"Don't talk about it. It was too terrible."

"He's talking to us. He's telling us he's glad. Wave at him, Kathy."

"I'm too weak. I could faint."

THE giant's hand came down and gently picked them up. Clinging to his fingers-of-fingers, they rode high over the floor of the space ship and came to a stop on the glass shelf that joined the wall of windows.

If they had looked out into the semi-darkness at that moment they might have seen a space flivver landing on the surface of the box which the giant had taken outside. But they were famished for food and drink, and just now Gret-O-Gret was serving them two bowls as large as horse-tanks, brimful of what they needed most.

They drank gratefully. They took only a little food at first. It was such a happy relief to be discovered again that Katherine only wanted to sit with her head in her arms.

"It was a long ride, Kathy, but our giant friend has brought us back to earth—just as you said he might."

Paul dampened a handkerchief in the water bowl and bathed her face and arms. She looked up with a hint of a smile that interested him. She didn't often smile. Normally, her face was the picture of alertness and steely determination.

"Your eyes are red, Paul," she said.

"Have you been watching the skies again? Is that how you know?"

Paul nodded. He knew the heavens well enough that he had been able to follow the course of Gret-O-Gret's solitary flight. The very chart the giant had used was, as Paul knew, an enlargement of the one from his own ship. But Paul had also spent many of his waking hours perched somewhere on the giant's clothing to watch the pag-eant of stars and planets through the window.

"It *must* be the earth," Paul said. He looked to the window. It was now quite dark beyond that vast curtain of glass. But inside, the gigantic shell of the ship was filled with cream-colored light. "I couldn't get much of a view before we landed this afternoon."

He hesitated, vaguely disturbed. The brightness of the sun had seemed just like old times, but there had been something unnatural in the cast of the clouds. He had failed to catch any familiar glimpses of the earth's surface.

"It has to be the earth," he repeated, banishing his strange doubts. "There's no question about it."

Katherine was looking up into the two great watchful eyes. "We'd better tell him about Glasgow," she said.

Paul frowned. He wondered if Garritt Glasgow had also succeeded in remaining alive through the long hours of the flight from the Mogo planets. It was no question of being able to remain in hiding. The fabric of the giant's clothing afforded unlimited opportunities for concealment, and for climbing about. It was a question of food and water.

Paul had not seen Glasgow since the day of their fight, when all three had very nearly fallen to their death.

"Are you sure he's still with us?"

Katherine nodded. "I've told you before that I've seen him—through the

shadows of the giant's clothing."

"But not in the light," Paul said. The shadows could be deceiving to one who lived in fear. "Have you seen him recently?"

"Yes."

"How recently?"

"Today. As we were coming into the earth's stratosphere. You were out in the light keeping watch."

Paul looked at her sharply. An erratic suspicion ran cold through his spine.

"Why didn't you call me?"

"And borrow trouble for both of us?" Katherine shook her head. "We couldn't afford it. You're in no condition to fight him again, Paul. And I don't believe you'd shoot him if you had a chance. It's lucky that he doesn't have a pistol. He wouldn't be so soft."

PAUL pressed his hands on Katherine's shoulders—pressed hard as he searched her eyes. "He hasn't seen you—has he?"

"I—I don't think so." She turned and took some food from the bowl. "Here, Paul, eat some more. We both need nourishment. We'll need our strength. And our wits. We're in a bad spot, Paul. With or without Glasgow, we're in a bad spot."

"We're alive."

"We're alive and we're back to the earth. Two of us—or three—out of our original ten. Before we have to face our public we'd better know whether it's two *or* three. And we'd better know what we're going to say to the newspapers before we let Garritt Glasgow do any talking!"

Katherine was right about that. A false story from Glasgow could easily climax the series of disasters that had already staggered the Paul Keller expedition.

"We've got to talk with Gret-O-

Gret," Paul said abruptly. He began to pace. There must be a way. Not by words. His and Katherine's Mogo vocabulary was much too limited.

Not by actions alone. How could one's actions reveal to a giant that a third party was still hiding in his garments?

By pictures, then?

"What can we use for paper, Katherine? I'm going to give Gret-O-Gret some hieroglyphics that will make him dance on all four hands and four feet. Here!"

The giant was observing his every move as Paul began to sketch. The horizontal side of a bowl served as a canvas. Katherine helped him gather handfuls of smudge from the base of the windows that was dark enough to make bold marks.

"Paul, you're so slow. Now he isn't even watching. If you'd only—" Katherine's complaint ended abruptly. "Here he comes. He has that big reading glass. He's watching, Paul. Keep drawing . . ."

Paul drew with the swiftness of an inspired artist. A Mogo giant. Two people clinging to his garment. A third person hiding a little distance away.

"He's watching, Paul. Don't stop. Let him know that the third party is dangerous."

It wasn't easy. The second idea called for a sketch of the third person attacking the other two. Paul worked with excitement. The giant was studying the pictures closely, and his low rhythmic breathing came to Paul like a warm zephyr that kept returning.

"I don't think he understands," Katherine said. "Is there any way you can make it plainer?"

Paul turned the bowl again and began a new picture on a clean patch of wall. Again—three small figures. Two of them—his representations of Kath-

erine and himself—stood hand in hand on the giant's shoulder. The third was imprisoned in a box with cross-hatch screen walls.

It was slow business. A strange way to spend a strange night, as Katherine observed. But Paul knew it was a worthwhile investment. The bond between a good Mogo giant and the people of the earth was closer than ever.

WHEN Gret-O-Gret turned away from the glass shelf, Paul saw that he was ready to act on the communicated ideas. With searching lights turned on his shirt and sash, he began to survey his garments with the aid of a small instrument. The gadget fitted his hand and looked like a giant-size hairbrush.

"A Mogo delouser, I'll bet," said Paul. "Just the thing for Glasgow."

The fugitive came tumbling out of the shirt front with a terrified howl. The hairbrush affair drew him like a vacuum cleaner and he stuck to its brushlike surface, waving his arms and kicking with one free leg until Gret's fingers-of-fingers pulled him off.

The giant's hands motioned Katherine and Paul back out of the way as he set Glasgow down before the food and water bowls.

Between gulps, Glasgow turned to yell at Paul. "I saw you put him up to it, you stinking coward. You've told him to put me behind bars, too. Well, we'll see."

Katherine tried to draw Paul farther back into the shadow of Gret-O-Gret's arm.

"He's raving," Paul said. "He's probably sick with a fever."

"You'd save trouble if you'd shoot him outright."

Paul was destined to recall that remark many times, always wondering if his wife had some premonition of the

unimaginable terrors to come. But Paul could only turn a deaf ear to such a suggestion. An outright killing—even a captain's fully justified execution of a bloody-handed traitor—would have been, under the circumstances, the wrong move. The good giant Gret-O-Gret would not understand. All of the faith which had been built up between the best of little people and the best of giants might dissolve instantly.

"You'd save yourself trouble—"

"Quiet, Katherine. Give the giant a chance to handle this."

Gret-O-Gret had not missed an important part of Paul's picture message. He now brought forth a bit of flexible black tube that dangled from his hand like a giant-size piece of insulation for an electric cord. Whatever it was, Gret snapped off an end of it. The giant shears that he dropped back into an open drawer sounded like a collision of locomotives. The black segment of cord, Paul saw, was an open tube about as large as a section of sewer main.

Glasgow began to back away from the food bowls, looking for a shadow. He saw what was coming. He started to run. The giant fingers snatched him up, dropped him into the black cylindrical prison, and secured him there by wrapping a bit of fine-weave screen over the ends.

"I'll get you for this!" Glasgow shrieked at Paul as the hand carried him away.

The black prison was pushed back to the farther end of the glass shelf where the prisoner, supplied with food and water, could be safely forgotten.

Then the very understanding giant of Mogo returned his attention to Paul and Katherine. He *seemed* to be saying, "Tell me more with your pictures. Tell me what you know of my flight from the Mogo system to your Solar system." For he placed Katherine and

Paul on another shelf where the vast charts spread over the wall like a section of the sky stretching upward from their eyes.

He provided them with suitable drawing materials. Then, looking down at them with his mouth spread with what must have been a pleasant Mogo smile (although Katherine said she would never get used to it) he hummed softly. He was waiting.

"He wants more hieroglyphics," Katherine said. "Give. He wants to be amused."

"Amused, you think?"

"What do you think?"

Paul didn't answer. His wits were ahead of Katherine for once. He saw a deeper meaning in Gret-O-Gret's actions, and what he saw gave his heavy heart a thrill of hope.

"He wants to be entertained," Katherine repeated. "He wants more pictures."

"We'll entertain him," Paul said, smiling to himself at the wonderful secret that only he and Gret-O-Gret shared.

## CHAPTER IX

"I NEVER saw anything like this before," Anna Pantella gasped. "What a ship!"

"That's no ship, that's a whole city, wrapped up in one package," George said.

"It's no city. It's a whole planet."

"It's no planet. It's just a long mountain with windows."

"It's no mountain," Anna said. "It's—"

"Stop it," George growled. "It's a ship. It's a thirteen-mile ship just like you said."

"With half-mile windows."

"And airlocks big enough for a flock of dirigibles to float in."

"I never saw anything like it!" Anna repeated.

"Even your brother on Venus never saw anything like it. Did you say you saw—"

"What?"

"Never mind."

George was thinking back to the curious things Anna had said while looking through the telescope during the hour before they had approached this flat surface for a landing. At the time he had believed she was imagining things. But she had declared she saw someone come out of the ship and place a box on the ground. A box a half-mile long!

This landing place did resemble a box. A box of glazed white stone, fully half a mile long and as wide as a city block. Its top surface, tilted slightly, had taken the flivver's landing as solidly as any concrete runway.

George left the airlocks of his flivver standing open as he walked out across the smooth, plastic-like surface. Anna followed him. Her white dress faded into the white background, so that she was only a shadow of face, arms and legs in the deepening darkness.

"I brought a flashlight, Big Boy," she said. "We could signal across to the big ship. Maybe they'd send out a reception committee." She flashed the light on.

"Shut it off, damn it!" George snapped.

"I was just trying to be helpful."

"Go back to the flivver and wait."

"In the dark?"

"Certainly."

"Can I turn on a light?"

"Hell, no. If they haven't seen us come in, let's keep it quiet—at least until we size them up."

"I sized them up through the telescope," Anna said. "They're big. I can tell you that." She started back

toward the flivver. "I'll turn on the little green light over the *K lever*."

"Huh?" George swallowed. "Wait a minute. What do you know about the *K Lever*?"

"Don't you think I've piloted space ships? My brother and I—"

"All right, that does it. You stay with me. Come on."

"Thanks, Big Boy. Even if you don't trust me—thanks. I'd be afraid to stay back there by myself."

They walked along the edge of the white box top, peering across at the huge rectangles of cream-colored light. It was a sight to take their breath. A single immense brown shadow was moving about in the upper end of the ship. At first George thought this was some kind of lighting effect. The windows would have served ideally, George thought, as display windows for passing air traffic, and he speculated upon the possibility that some neighboring planet might have devised this space-riding monster for commercial use.

**B**UT in the back of his mind was the pressing thought of the earth's great disaster. When Anna began to talk about what a nice little fighting boat this sky monster would be, her hand quivered on his arm.

"If you'd left me sitting alone in your space ship, Big Boy, I'd have been sure that any minute they'd spot me with a light. And someone would touch a trigger, and blooey, where would I be?"

"Yeah? Where would my space flivver be?"

"Oh, sure. Don't mind me. Just think of your flivver," Anna taunted.

"There's not another craft like it on this earth."

"I could say the same thing about me," said Anna. George was aware that she edged a bit closer.

"We're going back," he said. "We'd



better find the Venus Express and tell them—" He stopped again fascinated by the movements of the great brown shadow occasionally visible through the nearer windows. "The strange thing is, that whole barny crate doesn't seem to have anyone in it. I haven't seen a soul—unless—"

"Unless what?" Anna gulped. "You mean that big shadow?"

"It has arms," George said. A chill leaped through his spine to the top of his head. "It has arms—with hands—"

"With fingers—"

"With claws!"

"With people in its claws! *Look!* Two people! *Look! LOOK!*"

"*Don't scream or I'll knock your teeth out.*"

"I'm not screaming. *LOOK!!!*"

"Come on, let's get out of here."

George jerked at her hand. Her feet must have been riveted to the floor. And his, too. He stood gazing, awe-struck. A cold paralysis seized him, head to foot.

"Look, Big Boy. He's bending toward the window. He still has them in his fingers. There's his head and shoulders now."

George mumbled as if the breath had been knocked out of him. "And you call me *Big Boy!*"

"*LOOK! HIS EYES! HIS FACE!*"

Anna screamed

## CHAPTER X

THEY tied the rope ladder to a projection on the corner of the white box and climbed down through the darkness.

"Are you sure it reaches the ground?" Anna asked.

"If it doesn't, you can jump."

"*You'd never catch me.*"

"How right you are," George said. He had ceased to be annoyed with himself

for having let her come along. He was teasing her—harshly, perhaps, but she could take it. And it gave him a measure of relief from his nervousness. Before this night ended he meant to enter the giant's spaceship and see a few things for himself. If he waited until morning his flivver would be seen and there was no telling what would happen.

"I hope you're not doing this on account of anything I said," Anna protested, stopping on the ladder to catch her breath.

"Come on, come on, you're holding up the party."

"I mean, I just happened to mention that if my brother was here—"

"I heard you. If he were here and he saw those giant airlocks open, he'd walk in with an atomic pistol in each hand—"

"I didn't say anything about atomic pistols."

"And he'd demand to know who's trespassing and why."

"I didn't say that," Anna said, giving the rope ladder a shake. "But he might, at that."

George reached the ground. He flashed a light for Anna. She scorned the last step and dropped to the ground gracefully. She had a good athletic figure for a girl, he thought.

"Get your bearings," he said, flashing the light around. "We might do a return trip on the run, you know."

"I can climb a rope ladder as fast as you can," she said, "and I can beat you in a footrace too, if it comes to that."

"You've got your flashlight? Your pistol? You know how to shoot, if necessary?"

"I'll bet I can outshoot you."

"You can out-scream me, I've found that out," George said sarcastically.

"Look, Big Boy." Anna turned the light toward her own face. "You see

those teeth? Nice teeth, aren't they? Do you remember saying you were going to knock them out if I screamed?"

"All right, forget it."

"And I *did* scream, and you swung at me."

"Yeah. I missed, didn't I?"

"My brother from Venus wouldn't have missed. He'd have knocked 'em out. Lead on, Big Boy."

The entrance to the mammoth space ship was high enough above the ground so that they were put to an hour's trouble, climbing around through the dark, before they finally stumbled upon the massive gangplank arrangement that gave them a sloping ascent to their destination.

With every step, George Hurley became more acutely conscious of the seriousness of what he was undertaking. Friend or foe? He kept telling himself he mustn't jump at conclusions. But the conviction was deepening in his mind. Here was a creature who might possess enough power to be responsible for the recent explosions around the earth.

THE very realization made George dizzy. The warmth of hero visions swept over him. At this moment he might be on the verge of discovering the inner secrets of some out-of-this-world enemy—secrets that would bring him fame on every planet where the fate of the earth would make news. He shook his head to shake off the spell. Anna gave him a curious look. She stood back, when they reached the mile-high slice of light from the doorway, and allowed him to enter first.

Their footsteps were noiseless. The floor appeared to be white glass, a veritable sea of it stretching the length of the ship. "The kind of boulevard cities dream about," Anna said. "If the airlocks had been open a little wider you

could have landed your flivver in here."

"And get it stepped on?"

"There's a point," Anna agreed. "Let's make sure *we* don't get stepped on, either. One false move of that giant's left rear foot and we're peanut butter."

They hugged the wall and moved along the white avenue like fleas exploring the aisle of a church. The interior decoration came to their rescue, offering a long curved catwalk five feet wide and several city blocks long. It led upward, a gentle sloping path toward the window shelf many hundred feet above them.

"Made to order," George observed.

"And could be used as a slippery-slide down in case of fire." Anna stopped, puffing for breath, to gauge the long climb ahead. "Oh, well, maybe there'll be hot coffee when we reach the summit."

"It's the ledge where he was picking up the people when we saw him through the window. You wait here. I'll go up and take a look."

"Me wait? Say, if I can't climb that little ski-run, Big Boy—" but she didn't finish, evidently preferring to save her breath for climbing.

The giant was still puttering around at the farther end of the aisle when they reached the shelf. From this vantage point they had their fill of gazing at him, although his back was still turned to them. His four stocky legs a half mile below them supported the base of his thick body. It was a compound body, tapering to narrower dimensions as it towered upward through two sets of shoulders to a rather alarming head, full and square-jawed. The light brown head, the yellow hair, the slightly shaggy arms and legs were exposed; otherwise the giant was clothed in loose-fitting brown garments adorned only with an orange sash around his vast middle.

"There's many a circus tent in that sash alone," Anna observed.

The massive creature was having a little trouble with his breathing, George thought. Once he touched a lever that adjusted the circulation of the air, and he glanced at the airlocks, but must have decided against closing them. He returned his attention to the immense charts and navigating instruments around him, and frequently he would put a magnifying instrument to his eye and bend down to study something on the ledge before him.

"I think he has the people down there," George said. "Maybe he's talking with them. Let's go closer."

"Maybe he's mixing them up in a salad," Anna said. "Let's hold back."

But she kept edging along the inner border of the shelf at the base of the windows for a more advantageous view, and George shared her pace.

Suddenly both of them stopped. Someone nearby had called to them. The voice struck George for a chill. He had almost forgotten there could be other human voices besides Anna Pantella's and his own.

"Come here! Hsssst! Come here, both of you . . . I'm over here in the black tube."

They had hardly noticed the object in passing. They turned back cautiously. The thing looked like a locomotive-sized cylinder of licorice with screens wrapped over the ends. But there was a face showing dimly through the screen. Apparently, someone was in trouble.

"Have they got you in a rattrap, partner?" George asked.

"Not so loud," said the man. His voice was thin and tense. "Let me talk with you. It's terribly important."

GEORGE moved close enough to touch the front of the crude prison

and stood where the screen didn't interfere with the light. The prisoner was a small man of forty, lightly whiskered, and probably half starved. His clothing, chosen for space traveling, were badly in need of a clean-press. His eyes were gaunt. The lines around his mouth twitched with nervous tension. George thought his teeth were chattering, as if from cold. George himself was perspiring jelly-beans. Anna, however, looked as cool and calm as a Sunday visitor at the zoo observing the animals.

Anna spoke pleasantly. "When does the giant eat you? Tomorrow at breakfast?"

"I wish it were that simple," the man retorted acidly. "I have come to save the earth from destruction."

"Save it?"

"Oh, you'll think I'm talking nonsense at first. But listen to me. There's a great catastrophe coming."

"There's a great catastrophe just been," said Anna. "You're top late."

For the next few minutes the little man was George's ideal of a perfect listener. He drank in every word about the earth's destruction with the eagerness of a thirsty man at a well. There was no telling what he was thinking. The news obviously shocked him, still he seemed familiar with the idea. He kept nodding, as if all the destruction had happened quite according to plan—a deadly plan with which he was familiar.

"What has happened," he said presently, "is only the beginning. The plot is going on this very minute." He gestured toward the giant. "When *they* get through with this old ball—there won't even be a smoke cloud left to mark the spot."

"The earth?"

"If you want to call it that. It's just a wad of minerals to *them*. When they

break it down and make off with it, you know what will happen to the other planets."

George commented doubtfully. He tried to imagine how fast things would happen if the solar system were suddenly thrown out of balance.

"There'd be plenty of celestial crashing, my friend," said the man.

Anna gave a little gasp. George knew she was thinking of her brother on Venus. He touched her arm with a restraining hand. If what this man said was true, it behooved them to take as broad a view of the situation as possible.

"As you see, I've just come back from the outer world," the man said. "I was a stowaway at first. You'll have to pardon my appearance." He glanced at his nails and touched his cheeks. "In some circles I would be recognized as a well known explorer, Garritt Glasgow."

"Haven't I seen you in the newsreels?" Anna asked.

"It is my sincere hope," Glasgow went on, "that I'm still in time to save what's left of the earth—and to warn the neighboring planets. If I can find the right man to take my message—" He was looking George over from head to foot, and his eyes glittered like a prophet's—or a maniac's.

"We'd better get you out of here," George said.

THE man's eyebrows lifted. "It could be done. Still, I'm safe here for a few hours. And if I got away on foot, Gret-O-Gret—the giant—might overtake me in an hour. Until there's a chance for me to escape by plane or space ship, I'd better stay."

"But we have it!" George exclaimed. "My space flivver is right outside."

"S-s-h! Not so loud!" A wonderful expression of eagerness showed in the tense, bird-like face. "Get me out

of here quick. Here, use your atomic pistol on the screen. Cut a slit."

Anna stopped George with her question, "What about those other two we saw the giant tossing around? Maybe there's more to be rescued."

"There's no one else," Garritt Glasgow snapped. He slipped through the opening. "Those two you saw—sad cases! Did you see how friendly the giant was? They're in his good graces because they're in league with him. They've sold out the earth, the dastardly traitors. They've led him here to finish the job that one of his cousins began."

"They're traitors to the earth?" Anna drew a sharp painful breath.

Garritt Glasgow nodded. "We'd put an end to them this minute if it weren't for their husky friend. Don't let them see you. Lead the way, fellow, and I'll follow you. Here, give me one of those pistols in case of trouble. You understand that I want to go to the earth's most important people the quickest way."

"Not counting present company," said Anna, "the eight passengers from Venus must be the folks you want to see."

They raced almost noiselessly down the incline, the stranger warning them that the giant had ears on his four ankles as well as on his head. They passed through the airlocks, flashed their light on the gangplank, crossed a few yards of torn earth to the side of the box. George was still in the lead as they climbed the rope ladder and hurried to the flivver.

Inside, they closed the airlocks.

George settled in the pilot's seat. He taxied around. Another glance at the huge ship.

"Where'd you say that big job came from?" he asked as he checked his instruments preparatory to the take-off.

Anna and the stranger took the other control cabin seats.

"From the Mogo planets," said Glasgow.

"Mogo; *Mogo!*" George's hands gave an involuntary jerk. "That's where the Paul Keller expedition went. Did you ever hear of them?"

"I was one of them."

"You were?" George rose, forgetting that he was about to take off. He faced Glasgow eagerly. "Then you know Judy Longworth, my girl friend?"

"I *did* know her," Glasgow said. "She was on the other ship when Paul Keller pulled his big deal. It was a dreadful piece of violence. You wouldn't want to hear about it. You don't *know* Keller, do you?"

"Not personally," George felt himself grow pale. His fingers were trembling. "I don't get you. Accident?"

"Accident, hell. Keller had sold out the earth. He didn't dare take anyone but his wife in on the deal. He opened fire on the others. I happened to get away. But I saw him shoot the other ship down—the one your friend was on. It plunged into the river, and that was how he checked off five."

"But Judy! Judy Longworth! My girl!"

"I'm telling you, he shot her down without warning. It was all a part of this deal with the giants . . ."

But George wasn't hearing any more. He slumped against the wall, suddenly numbed by the awful news that was part truth and part lie. Anna helped him to a comfortable seat—to a position where he could relax.

"If the lad's feeling ill," Glasgow's voice sounded through George's stunned feelings, "I'll take the controls. We've got to get out of here."

The snap of the levers sounded, the flivver eased into motion and leaped out into the morning sky.

## CHAPTER 41

GEORGE came back to consciousness slowly. He was lying on a blanket on the ground, and as he opened his eyes he saw streaks of sunlight filtering down through the leaves. At first he thought of the summer camps of his boyhood. Or was this a picnic? They were having breakfast under the trees. He could hear their conversation. Strange voices, but friendly ones.

"Do have something to eat, Mr. Waterfield. It will help you not to worry . . . More coffee, Judge Lagnese?"

George drew a deep breath. The aroma of coffee was good. He raised up on one elbow. The midforenoon sun was high above a jagged black mountain. The Banrab Valley. Of course. This was the party of travelers from the Venus Express. The passengers and the crew. They were eating breakfast outdoors, watching for any approaching dangers.

The bright fuselage of the Venus Express gleamed in the sunlight in the center of the clearing. Such a ship offered ample protection against any earthly danger. They might have stayed aboard, but George gathered from their conversation that their sentiments for Old Mother Earth were full and deep on this particular morning.

His thoughts flashed through the nightmarish events of the preceding hours. The giant . . . the savagely aggressive little Mr. Glasgow . . . the awful news of Judy Longworth . . .

George closed his eyes to believe it was all a dream. But the conversations were beating against his ears.

"I know it's terrible, Judge Lagnese. If the giants have done it, like Mr. Glasgow said . . . well, there must be some way . . ."

The large woman with the deep, confident voice was doing her best to re-

store the spirits of the men.

"You mustn't worry yourself sick, Mr. Waterfield. That won't help anyone, you know."

"Thank you, I'm trying not to worry. I'm shocked. Deeply shocked—naturally." The man who had been addressed as Mr. Waterfield sipped his coffee slowly. "My fortune was made here on the earth. The earth has been good to me. Now my best investments are gone."

The group around the camp table looked at him and George could feel the sincerity of their sympathy. Mr. Waterfield had been one of the earth's billionaires. Unlike some men of wealth, he had been a friend of all classes of people.

"Your investments?" someone asked. "I thought you had taken your wealth to Venus, Mr. Waterfield. Didn't you finance the American Colony there?"

"My best investments were my many friends here on the earth." Waterfield's lips tightened. George saw he was a man of perhaps fifty-five, black-haired and beetle-browed, with deep-set eyes that were at once fierce and kind.

The two high-spirited persons in the party were the large motherly woman who was serving coffee and her diminutive husband. They were a pair of professional entertainers, as George soon learned. Mamma Mountain and Papa Mouse. They had returned to the earth for a series of theater engagements.

"If you eat well, your worries don't weigh so heavy," Papa Mouse was saying. "Look at my wife. She don't worry and she's as light as a feather."

They managed to laugh. Mamma Mountain weighed at least three hundred. She gave her impish husband an affectionate hug. He pretended that it was too much for him and when she stepped aside, he fell on his face in the grass as if he had fainted.

"Save your clowning, honey," Mamma Mountain said, picking him up with one hand and setting him on his feet. "We're not in the mood for it."

WHERE was Anna Pantella? And where was Garritt Glasgow? The group had mentioned Glasgow; and there had been some nervous talk of the giant. It was evident that they had had the benefit of Glasgow's story of Paul Keller, the traitor, and his Mogo destroyer.

George suddenly came to his feet.

"Where's my ship?"

Until this moment, the breakfast group had thought him asleep. Mamma Mountain called to him. "Come on over and have some breakfast, young man."

George's feet tangled in the blanket. He picked it up and folded it, trying to collect his dizzy thoughts. He felt terribly alone with these strangers until they began to thank him for having guided them in from space.

"We found your landing place without any trouble," the ship's captain said. "How are you feeling this morning? They said you were ill."

The fever leaped through George's brain. Ill, was he? Maybe so. Maybe they'd drugged him. If they hadn't, why should he be ill? The strain of his recent space ship jaunts was not enough to account for his grogginess.

"Where are they?"

In answer, the captain glanced toward the ship. But at that moment the little red-faced old man with the white moustache and goatee stepped up with a dramatic question. And when Judge Lagnese asked a question, his rich courtroom manner commanded attention.

"Young man, I'm checking up. You were with Garritt Glasgow. Did you see a giant?"

"Did I? He almost stepped on us."

"Was he quite large?"

"About six times as tall as a skyscraper. Maybe ten. He was big." George backed away, glancing to the side. "Where's my space flivver?"

"How many arms did he have?"

"Four. Where's—"

"How many legs?"

"Four."

"Heads?"

"One. Where's my—"

"Could you lead us to this giant?"

"Why should I want to?" George retorted with somewhat less dignity than Judge Lagnese evidently expected. The judge's red face grew redder as he looked George up and down. One good friendship ruined by a discourteous answer, George thought.

"I mean," George added, "if he's looking for people to crush, I wouldn't want to lead anyone into danger. He had Garritt Glasgow in a cage, you know, inside his big ship, on a shelf."

The captain, the billionaire, and the judge exchanged looks and nods. The captain asked, "Were there any other people around besides you and the girl and Glasgow?"

"The two traitors," George said. More nods. They were checking up on Glasgow's story and this apparently satisfied them. They asked for a description of the Kellers. George couldn't give them many details. He had been too busy rescuing Glasgow.

The judge threw in a skeptical question. "How do you know the Kellers are traitors?"

George felt that his own honesty was being attacked. "I got the story from Glasgow."

"How do you know he wasn't lying?"

"IT LOOKED straight to me," George said staunchly. "The Kellers and the giant were hobnobbing like old friends. Anybody that's that friendly

with giants that have just destroyed the earth—"

"How do you know the giants did it?" The little red-faced old man was playing his courtroom habits as if for his own secret pleasure.

"How do I know?" George began to stammer. "How do I know? Hell, I've seen the earth all ripped up. And I've seen the giant. And I've seen his thirteen-mile ship. If that isn't proof enough—"

Mr. Waterfield interrupted with a quieter note. "After all, Judge Lagnese, this young man is only giving us his best guess."

The judge turned away, grumbling. "I've seen some strange things in my day. But it's hard to believe that people like the Kellers would spring such a dastardly plot."

George followed him angrily. "Maybe you don't believe there's a giant."

"I'll take your word for that. And the girl's. She gave us a vivid description."

"Did you ask her about the Kellers?" George demanded. "Where is she?"

Someone answered that she was having her night's sleep this morning in one of the berths in the Venus Express.

George started off toward the big ship. He wanted a few words with Anna Pantella. But the conversation caught him again and he turned back to listen. The captain was telling the others that there was no use for anyone to remain on the earth now. They might as well all board the Express and go back to Venus for their own safety.

"The earth is dead," the captain said. "In years to come there'll be salvage expeditions. After the smoke has cleared and the oceans have found new beds, men will come back this way again. But for the present we'd just as well leave this shell of death."

"Leave it to whom?" the fiery judge

asked, reddening again. "To the giant?"

"To the giant and the two earth people who did the dastardly deed. I can't think of a fitter punishment than to give them what they asked for. A ruined planet, all their own doing."

The judge shook his head. "We're being short-sighted. If giants get a toe-hold on this globe, they'll make a military base of it. Next, they come to Venus. Then to Mars. Before your generation passes, Captain, the solar system shall have passed out of our hands."

There was cold silence as these grave men stood, staring at each other, trying to imagine their way through the dark future. Mamma Mountain and Papa Mouse stood by, looking forlorn.

"I've got a hunch our theater engagements are all cancelled," Papa Mouse said, raising an eyebrow toward Mamma.

More silence. George crowded back into the circle. He spoke, and his words were tense.

"Listen. This earth is my home. I've never gone to Venus to live. Or Mars. Or any other planet. I belong to the earth, and I figure a share of it belongs to me. I don't care where the rest of you go. This is my headquarters, right here."

"Humph," said Mamma Mountain. "That's just what the girl said."

"The two youngsters can get married and start civilization all over," said Papa Mouse with a wink.

"If they do," said Mamma Mountain, "it'll be a healthy race. No runts like you, Papa."

"Leave the girl out of this," George snapped. "I'm stating my own views, no one else's."

Then the little old judge galvanized the group with a speech that was like a courtroom verdict.

"Good, young man. I'm for you. Stick by the earth. You young folks have got the spirit. I wish I were your age again. I'd go to work and *rebuild this planet*. I'd equip it with the *best* space ports this side of the Milky Way. And the *best* people. And the *best* government. And the *best* ideas. If I were fifty years younger—"

The judge shook a fist in the air and in his fiery enthusiasm he suddenly threw his dignity to the winds.

"If I were fifty years younger—but hell, I'm not so old. Let's get busy and rebuild!"

"Let's rebuild!" It was Waterfield, the man of wealth, who echoed the judge's words, his dark eyes blazing.

"We've got the beginnings right here," the judge said, gesturing all around the circle. When he came to George he made a gavel of his hand and beat the air to emphasize his edict. "And you, young man—as long as I have anything to do with the government of this ruined earth, you and that young lady are to have a place on the governing committee."

All at once they were making plans. A few of them would stay here at Ban-rab while the others went back to Venus for new equipment, financial support, and recruits to the cause of a brand new earth. They decided that for the present they should encamp in certain nearby caves, to be safe in case the giant came this way.

"I can keep watch on the giant," George volunteered. Then a forgotten question mark jumped through his mind again. "Where is my space flivver? Where did they park it? I haven't seen Glasgow since I woke up. Where—"

"Didn't I tell you?" the captain asked. "Glasgow borrowed it. He said you wouldn't mind. He has a scheme to get rid of the giant, and he knew



where to get help right away."

"The hell. Where'd he go?"

"To Venus," said the captain. "He could have waited for me. I'm taking off with the Express right away."

"You've got an extra passenger," said George.

## CHAPTER XII

AS SOON as the Express had plunged into the skies toward Venus, George cornered Anna on the observation deck. She looked back at the earth, receding into the blackness, and yawned, pretending to be too sleepy to talk.

"Listen, Little Gal Blue," he said, alluding to the blue and white sport dress she was wearing. "When friend Glasgow decided to run off with my ship, why didn't you blow your horn?"

"I didn't like it, Big Boy, believe me. But I was *so* sleepy."

"You sleepy? What about me?"

"You were sick."

"Maybe."

"After that bad news—"

"Yeah."

"Glasgow gave you something to make you sleep, and I'll swear he gave you too much. But maybe it eased the shock for you."

"I guess so."

"I'm awfully sorry about Judy Longworth, Big Boy. Maybe I kidded you about her at first. But I know how you must feel. If there's ever anything I can do—"

"Thanks, Pantella." He felt more friendly toward her. "But darn it, his running off with that ship is pretty high-handed business. I don't like it."

"I understand. My brother—"

"As long as you have a space flivver to run around in you're sort of free. If you want to spin around the sun or take a swing out to Jupiter you can get in

and go."

"I know." She *was* being sympathetic for once.

"Or if you just want to be alone with your own thoughts, you can coast around the moon."

"Sure, Big Boy. I know how you feel. Losing a space ship is like losing a leg or two."

"That's it. That's the reason I'm making this trip to Venus. To try to find Glasgow."

"That's why I came!" Anna exclaimed. "Look, I've already got a lead. I sneaked an item out of his billfold."

She handed George a small autographed snapshot. It was a picture of a sharp-eyed woman whose bird-like features resembled Glasgow's. The glittering earrings and hat of wingmen's plumes looked expensive. The picture was inscribed, "*Your sister, Madam Zukor.*"

"I have a hunch that my brother on Venus will have heard of this Madam Zukor," Anna said.

Later on the voyage George related to Anna a part of the Banrab camp conversation.

"The judge pretended he was skeptical about Glasgow, and once he seemed to be defending the Kellers. You know, sometimes I wish we could have had a word with them."

"They'd probably have told the giant to throw us in the pen," Anna said pessimistically.

George's pessimism concerning his borrowed flivver dominated his mood throughout the trip. It was the only ship of its kind, and it was his.

"Forget it," Anna would say. "There are bigger things. Wait 'til we see what the Venus capital is planning to do about the old earth."

"They may not be so anxious to do anything," said George gloomily.

"Some will help, anyway. It won't be like I first thought. Wasn't I silly, Big Boy? I mean—" She hesitated, reddening a little.

"Silly? How?"

"Silly for thinking that you and I would be the only ones to bring human life back to the planet. Why didn't you swing at me and bust my teeth in, like you said once?"

"Heck, that idea wasn't so silly. I mean, at first it was the natural thing to jump to crazy conclusions like that." He added sternness to his voice. "But don't ever mention it again."

Venus came in sight, the broad land smiling up at them as they descended. There was a sickening hour of retarding, at last swiftly entering into the atmosphere. Now they were air cruising, skimming low. A flock of native wingmen flew in a long string like a cloud across their path. A moment later they were landing at the port of the Venus capital, the pink and white stone city built by the colony of Americans.

### CHAPTER XIII

IN THE Silver Garden, one of the expensive all night restaurants in the capital of Venus, Vida Glasgow, better known as Madame Zukor, drank a toast to her brother.

"I knew you were ambitious, Garritt, but I didn't expect you'd try to become King of the Earth."

"King is an old-fashioned word," said Glasgow. He sipped his drink with the air of a man who is about to be toasted by all the world.

"Dictator, then?"

"The word is in bad repute. Let us say, *Director*."

"Garritt Glasgow, *Director of the Earth*. It has a nice rhythm to it, Garritt." She responded to his smile of secrecy, her dark eyelids half closed.

"You may count on me. But you must get the Kellers out of the way. You don't want those Mogo murders to boomerang."

"Murder is an ugly word," Glasgow said. "Shall we say indiscretions?"

"We'll be on speaking terms with lots of ugly words before you become Director of the Earth. Your very first job is to *murder the Kellers*."

"Paul Keller," Glasgow corrected.

"Oh? You mean to be chivalrous to the woman. Why?"

"Shall we have another drink," said Glasgow, "to the future wife of the Director?"

"Wife?"

"Wife."

"You intend to marry Katherine Keller? You're in love—"

"Love is another rash word, like murder," said Glasgow. "Katherine Keller is a smart woman. She would be useful to me."

The waiter came with another tray of drinks, but Madame Zukor waved him away. She swung her cape of white wingmen's feathers about her.

"I've a strange feeling that someone is watching us, Garritt. Let's change tables."

She led the way up the steps to a balcony that led to a hanging garden. "You could never be sure of Katherine Keller," she resumed. "You wouldn't dare trust her."

"Skip it," said Glasgow. He glanced back at the lower level and now he was aware that someone had been watching—a couple—the young man and the girl who had rescued him from Gret-O-Gret.

"Don't look now, but the Venus Express has arrived," Glasgow said.

"That husky lad with the sharp brown eyes and the girl in blue?"

"Right. They're the ones I told you about. I gave him a knockout drop be-

fore I borrowed his ship. Like taking milk from a baby."

Madame Zukor gave an uncomfortable "Umph!" The couple she saw were not the tired looking pair Glasgow remembered from a few earth days before. A handsome couple, as alert as a hungry wingman on the prowl. "I wouldn't underestimate them, Garritt. Let's move on."

They walked into the artificial garden of silver trees and glass flowers. "I would be wearing this flashy red dress," she mumbled. "There's an exit down this way."

Then—"Mr. Glasgow!"

Garritt Glasgow and his sister hurried on.

"MR. GLASGOW!"

Glasgow turned, pretending surprise.

"Mr. Glasgow, I want a word with you. Remember me?"

"Why, it's George Hurley. How *are* you, young man? You're looking much better than when I saw you last."

GLASGOW greeted him like a long lost brother. "Much, yes. And Miss Pantella! I was just telling Madame Zukor of your splendid favor. I'm so glad to meet you."

"Too glad," said Anna Pantella dryly. "Don't overdo it."

"If we seem to intrude," said George, very businesslike, in spite of the traitor's cordiality, "all we want is one missing space flivver."

"Your ship. Of course. My boy, you'll be happy to know that your ship got me here in record time. I've already begun to line up favors for the earth. I have high hopes. Already I have a promise from Madame Zukor—"

George Hurley swallowed hard as he took in this very slick-looking woman at close range. So this was Garritt Glasgow's sister. She had started to

whisper something to Glasgow, and failing, now retreated to the other side of a fountain. Glasgow amended his statement.

"Er—Madame Zukor prefers that I do not mention her contribution. But fortunately I've contacted her in time. Her ship leaves for Mars in a few hours, you know. The American social season opens on—"

"We only asked about the space flivver," said Anna Pantella.

George nudged her as a warning not to be too abrupt. The splendor of Madame Zukor had momentarily dazzled him—her sharp dark eyes, her glittering jewels, her white-feathered cape hanging from the shoulders of her red dress. The evidence of wealth was, if anything, exceeded by the talk of wealth. Madame Zukor was introduced and she and Glasgow were at once speaking in terms of millions. It gave George a sickening sensation to contrast his own comparative poverty. How he had struggled to save the thousands that had purchased his new space flivver. His wonderful ship. The pride of his life. A poor thing, indeed. It was a speck compared to their wealth. They must have thought nothing of it. People of their social standing wouldn't have taken his ship without good reason. They had only borrowed it.

Anna yielded to George's hint and spoke more agreeably. "The folks in Banrab wondered what you'd be able to accomplish here. They'll be glad to hear. Some of them stayed to fix up the camp."

Glasgow and his sister listened attentively.

"Did they believe—I mean, did they understand all that I told them?" Glasgow asked.

"Certainly. Why not?"

"I was afraid they might be skeptical until they saw the giant for them-

selves."

Anna's answer put Glasgow at his ease. "As soon as George awakened up and began to talk, well, they began to plan for trouble, like you said. They know we may have to fight off more than one giant."

"And the Kellers?"

"And the Kellers," Anna confirmed.

George was proud of the way she had demonstrated her grasp of the situation. Glasgow and Madame Zukor appeared to be completely satisfied.

"I'm calling a big meeting for tomorrow," Glasgow said. "I want you two to be there, to answer a few questions in front of the microphone."

With that, Glasgow and Madame Zukor waved good-bye and hurried off through the garden. George sat on the edge of the fountain and scooped a handful of water to mop his brow.

"Come on," said Anna. "This is no time for a shower bath."

"Where we going?"

"It's just a tiny hunch," said Anna, "but I want to follow Madame Zukor."

A moment later they caught a cab and followed the Glasgow car through the softly lighted streets and out through the avenues of government buildings to a row of prisons. With their lights dimmed, they approached within a block of a certain entrance where the Glasgow car had stopped.

## CHAPTER XIV

THE large barnlike room contained five hundred wingmen from the mountains and plains of Venus. They were wingmen who had committed offenses against the American colony on this planet. A few of them were murderers and creatures of violence. Others had merely trespassed on the colonists' property, or broken windows, or committed minor thefts.

*Laboratory subjects, they were called.*

Prisoners? No, not according to the doctors. They had been brought here for observation and care. But there was a limit to how much the doctors could do in reconstructing them. Some of the doctors doubted whether they should be considered morally liable for their crimes. Months of debate had ensued over this point. And meanwhile, with no guiding principle of treatment yet established, the superintendent of the "Wingman Hospital" had simply marked time. The guards had furnished the "patients" with food and water and a chance to exercise. What more could be done?

This sort of prison life was bad for many of the wingmen. A few lost their minds and became completely irresponsible. Others showed violent criminal tendencies. The newspapers of the Venus capital continually carried ads, "Wanted, guards at the Wingman Hospital. Must be strong and alert and familiar with the use of firearms."

It was after midnight, according to the clock at the end of the room, when one of the larger wingmen was awakened from his light sleep by the sound of voices. He understood the English words perfectly.

"I don't want any dillydallying," the visitor was saying. "I want the facts quick. Either I can use some of them or I can't."

"It's like I say," the guard answered. "You'll have to go to the superintendent. But I don't think he'll let you—"

"If I can convince him that they'll come back in better condition than they went out—"

"Sure I see your point."

"That's what the hospital wants, isn't it?"

"Well, it's like I say—"

"All right. All right. Give me the

facts. Are they killers? Can they be managed? Are they obedient?"

The wingman knew that the whole room was quietly awakening. The light shuffling of feathers. The light tapping of talon-like fingers on the bars. The soft swish of bare feet as wingmen shifted their positions cautiously to look to this end of the room. They might pretend they were still sleeping, but they were quietly alert, trying to overhear the conversation.

"He means to take some of us," the large green-winged inmate whispered to his nearest neighbor. "Listen. This may be our chance."

His companions passed his whisper on to their neighbors. "He means to take some of us. Watch your chances."

From cage to cage the whispers passed. The inmates knew the word had come from Green Flash. And they respected his leadership. He had not taken up any of the erratic actions that led to madness.

Like all wingmen, Green Flash possessed a body that resembled the bodies of the human foreigners who had come from the earth, with the additional physical equipment of a pair of wings. Wingmen's back and shoulder muscles were heavier than those of humans; their voices had more of a metallic, bird-like quality; and their wings gave them a certain majesty of motion which made the humans seem jerky and awkward in comparison.

**G**REEN FLASH had been an excellent fighter. Before his capture he had made a reputation for himself as a stubborn defender of wingmen's rights. Now he closed his big green wings tightly to make himself look as small as possible. The visitor was casting an eager eye at the rows of cages. Green Flash didn't want to be identified as something particularly dangerous.

"Do any of these wingmen speak English?" the visitor asked.

"A few of them. Like a parrot, you know. They echo us guards. You hear a lot of swearing around here when they're wide awake. Especially around feeding time."

"But they don't know what they're saying? Is that it?"

"You can't tell for sure."

"They have their own language, of course."

"Sure."

"Have you learned it?"

"Why should I? What I don't know don't hurt me. Let 'em talk. I'm not taking orders from them."

"All right. All right. The point is, they don't understand enough of our language to give them any advantage, I hope. For instance, they're not able to get what I'm saying right now—*are they?*"

The visitor wanted to make sure on this point. Green Flash, taking in every word of the conversation, chuckled to himself.

"It's different with different wingmen," the guard said. "I think some of them *do* understand. And I think that when some of them yell at you, 'Let me out, dammit!' that they know damn well what they're saying. But I can't prove it. And the doctors haven't got around to proving anything yet."

The visitor shook his head, not too well pleased. "If they're all different, I'd better pick my flock by hand."

"Well, you take that big boy over there with the green wings."

Green Flash saw that the guard was pointing to him.

"That fellow looks bad, and they say he made some trouble when they captured him. Any animal will fight when he's cornered. But he's an ideal prisoner—er—inmate. I've never heard him say a word."

"Never talks, eh?"

"Probably just plain dumb. I don't think he understands a word of English, and he'll probably never learn."

Green Flash snorted to himself. This was good. So they thought he didn't understand a word of English! Dumb, was he? Ha!

"I could tell you things, Mr. Guard," Green Flash said to himself. "I could tell you the name of your wife and how many kids you have and which ones of them stole jelly out of the cupboard last week. By the way, one time when you scolded them for stealing jelly, I was the one who had been in the family cupboard. But you'll never know about that."

The visitor's conversation with the guard had failed to reassure him. Green Flash saw the nervous twitches at the corners of his eyes. He was a small man with a birdlike face and his voice was thin and hard. He was strangely bold, however, in spite of his nervousness, and he showed an eagerness to come close to the cages and flash his defiant black eyes at inmates, as if to say, "I can make you march to time, and don't you ever doubt it."

One of the wingmen suddenly screeched out, "*Pipe down or I'll scratch your eyes out!*"

That was one of the mad ones. Green Flash instantly hissed a "S-s-s-sh!" and the hiss began to pass around the room. It was like a concert of mockery for the next few seconds. Then suddenly everything was silent again. Except for the low voice of the guard.

"That was one of the mad ones. They don't like him. That was their way of quieting him."

The little visitor stood defiantly, taking in the whole wide-awake room, then centering his glare on the one evil wingman who had threatened to scratch his eyes out. Green Flash thought, "Pay

no attention, you. If you're smart you'll let it pass. The guard told you. The fellow's mad."

**B**UT Garritt Glasgow was envisaging the time that he might have to face these creatures in the open, with his authority put to a test. Would he be able to handle them with his own personal persuasion—plus adequate weapons?

To Garritt Glasgow, it was an issue that needed to be settled here and now.

"It's all so much bluff," the guard was trying to reassure him. "Pay no attention."

"Let me borrow your whip."

The guard yielded the twelve foot blacksnake, and Glasgow paced up to the cage and thrust his whiphand through the bars. "Now, you double-damned beasts, let's have one more squawk out of you if you want your feathers ripped off."

"*Pipe down or I'll scratch your eyes out!*" the demented one shouted again.

Green Flash wished he could have choked that cry off. But the violent wingman was three cages away. Green Flash shuddered. He knew what was coming now. No wingman would be able to prevent it. Only the guard might. But would he?

The visitor swung the whip. Two awkward strokes. Then he caught the knack of it and lashed out in a way that meant business.

"That's enough," the guard barked.

There were nine others in the cage with the mad one, and the visitor didn't care where his strokes landed. His victims uttered shrieks of terror and fluttered back in the farthest corner. But Glasgow kept on lashing them.

"That's the wrong one!" the guard shouted. "Give me the whip! Stop it! That's a female!"

"Poor little Purple Wings!" Green

Flash groaned. He tried to hide his eyes. The innocent little female with the bright purple wings had been cut across the shoulder with one of the strokes, and her prison garment fell to expose her shoulder and breast, with a line of blood trickling down.

She was getting it now. Her feathers were flying. Feathers and blood. Poor little Purple Wings. Green Flash tore at the bars of his cage. That poor little kid should never have been put in the cage with the mad one, in the first place. The whip was beating down on her exposed back. The others had crowded into the corner, forcing her forward.

*"Pipe down or I'll scratch your eyes out!"* the mad one yelled again.

Glasgow's fury knew no bounds.

"Stop it!" the guard shrieked. He hurled Glasgow around by the shoulder and reached for the whip. "That's no way to—"

Green Flash saw it happen. He wished he could have had a part in it. But the four husky wingmen in another cage proved more than equal to their job. They tugged in unison and wrenched a bar. Screech! That did it. The largest of the four slipped through. Before the guard could whirl to see what had happened, the big brown-winged form leaped the fifteen yards of space and seized the visitor.

If Glasgow had been a large man it wouldn't have worked. But he was small and apparently weightless in the clutch of the big muscular brown-winged fellow. The wingman seized him and flew. The whip thumped to the floor. The guard staggered backward from the impact of a kick. Snatch, kick, and flutter—the wingman was sailing through the hall toward the open doorway beneath the clock at the end of the room.

"He's going to make it!" Green Flash

said under his breath. "He's going to bust out, carrying that whip devil with him. He's going to—"

**B**UT there was an obstacle in the doorway that Green Flash and all the other open-mouthed wingmen had not counted on. They had already given way to weird screams of delight when their tune suddenly changed into a deep, low groan. It wasn't the guard, raising his pistol to shoot. He wouldn't have dared to shoot, anyway, not when there was a human held in the escapee's hands.

It was the sight of two strangers in the doorway, a young man and a young woman, blocking the path of escape. Blocking it solidly, too, for the young man was no midget. He must have weighed all of two hundred and thirty pounds.

"Stop him, Big Boy!" the girl sang out, and her voice made five hundred wingmen gasp. "Stop him!"

Big Boy stopped him. The big brown wings beat the air, but the wingman was too late to change his course. The obstacle in the doorway dived and caught his legs, and the three struggling bodies fell to the floor. The tall, athletic looking girl jumped on top of the dog-pile and added her weight. From underneath, the pained voice of Garritt Glasgow cried for mercy.

A moment later five guards from neighboring buildings came running in, pistols ready. The fellow with the big brown wings who had come so near to winning a victory for his fellow wingmen, was tied, arm and wing, and led away to one of the special punishing cells.

Green Flash, watching the whole proceedings with a terrible curiosity, was entirely puzzled by the new turn of events. He was surprised when the little man who had been rescued, and

who certainly should have been thankful, quickly turned on his rescuer and demanded to know what *he* was doing there.

"We figured you might need a bodyguard, so we followed," Big Boy said.

"Bodyguard! Who appointed you?"

"Don't answer him 'til he can talk civil," the girl said savagely. "Maybe we should have let him and the wingman go ahead and fly. Then he wouldn't need your space flivver. By the way, Mr. Glasgow, where *is* that flivver? You skipped off without telling us. That's

why we followed you."

The guards were as puzzled as the audience of caged wingmen. As if these happenings were not already sufficiently confusing, two more persons entered at that moment—Garritt Glasgow's sister and the superintendent of the hospital.

"Are you in trouble, Garritt?" the woman in the flashy red dress and white-wing cape asked in an elegant manner. "It's all right. I've talked with the superintendent and he has consented to let us borrow sixty wingmen—for experimental purposes."

*(Continued on page 98)*

## ★ FRIENDSHIP AND THE HORMONES ★

*(Adrenal Types)*

**I**T MIGHT be stated that the product of the thyroid which increases the rate of metabolism for all tissues (thyroxin) is the torch which lights the fires of the cell, and keeps them burning.

In the cortex (outer sheath) of the adrenal glands the tissues which act as fireman cells to the body tissues are discovered.\* These tissues have so many beneficent duties in the body chemistry that it would be impossible to choose the most important one, but certainly the cells of the body must have their fuel. Without the adrenal cortex it is impossible for the body to make sugar from protein and fat. Animals without adrenal cortex (by removal) have as high as 20% of decrease in total oxygen consumption, as soon as the cortex stops functioning. This indicates that as much as twenty per cent of the blood sugar is normally furnished from fats and proteins via the adrenal cortex.\* As soon after this as the body uses up all the blood and tissue sugar, the thyroid fire has no more fuel and a rapid drop of body temperature and death take place.\*

There is an odd sort of partnership between the adrenal cortex and common table salt. If the body does not secure enough sodium chloride, it can not produce enough hormones in the cortex. In addition to this, if there is an acute deficiency of adrenal cortex products the body can not retain sodium chloride. The vicious circle which can be set up by salt starvation, such as sometimes occurs in India, involving a slow atrophy of the cortex which in turn accentuates the systematic shortage of NaCl, can readily be seen as one of the most important roads by which death may gradually encroach upon one's heritage.\* No wonder the Hindus have lamented to the British about the salt shortage. Also it is no wonder that

the monkey very carefully picks the tiny crystals of salt from his skin in order to satisfy his natural body demands. He doesn't care much what zoogazers think he is doing. It is unfortunate that the definite tastes of man are so distorted by conditioned reflexes. Still the salt hunger of men deficient in cortical hormones is almost always evident. Certain other hormones seem to be under-produced or to have their actions inhibited by too much salt intake.

As sodium chloride exhaustion takes place (the kidney cells probably lose their ability to recover NaCl from the tubule contents, causing it to be lost in the urine, as the cortical hormone concentration diminishes\*) the blood and other tissues retain potassium in order\* to keep the alkalinity correct.\* As potassium concentration increases, the inhibiting effect it exerts upon the heart grows greater, with the sodium drop tending to lower heart tone of itself.\* This is one reason, of course, why death results in cortical crises, although it is only one of manifold causes.

As salt is decreased in concentration through the body, another very important effect of its lack appears. Sodium is a necessary partner to calcium and the other constituents of the semi-permeable membranes which protect all the tissues from running together and losing the cellular integrities of their component parts.\* This osmotic disturbance actually takes place when enough sodium has been lost from the walls of the capillaries so that the fluid tissues exude into the solid tissues, causing what medical men refer to as "shock".

Another consequence of cortical deficiency is weakness and loss of muscle tone. Vitamin C, whose action depends upon the adrenal cortex (C is normally stored in the cortex too), loses



effectiveness as the cortex weakens, and a peculiar bronzing or graying of the skin accompanies this action.\*

Because the employment of various cortical hormones has never conclusively shown untoward results, it might be questioned whether these hormones are ever harmful of themselves, on account of their over-production in the body (which does occur)\*. It is very interesting that the manufacture of cortical hormones is accompanied by the production of both kinds of sex hormones. The cortex thus seems to be the gland responsible for maintaining the approximate 60 to 40% ratio of the two kinds of sex factors found in normal adult bodies\* (in males, of course, the 60% is male hormones).

The above is only intended to indicate the importance of the adrenal cortex. Many more facts might be mentioned, but this article is supposed to deal with the personality effects of the glands.

### Cortin and the Whole Man

AS THE fires of the body are lit by thyroxine, sugar handling is done by the cortex so the fuel content of the blood remains relatively near what it should be.\* Slightly inadequate cortex work, with slightly low blood sugar, has similar effects to mild insulin shock, when the pancreas is normal. Hunger and feeling of weakness and low energy level may easily result. This naturally concerns the most important of the factors produced by the cortex.

If the cortical manufacture of sex hormones is low, motivation, determination and courage are likely to be lacking, even when the whole metabolism is otherwise efficient.\* But normal sex life is the most injured by such a circumstance. This the seeming purity of the natural celibate is not so much a matter of mental control as of lack of hormone dictation. No doubt the greater majority of people are familiar with the robot office worker type, which is seemingly possessed of unflagging energy at work, but lacks spirit to activate it in play. There are many more people of this type than is commonly suspected. Thus the adrenal cortex not only piles fuel upon the body fires, but it contributes in large part to the tone of the body and to the esprit de corps.

The possession of an adrenal cortex which manufactures all its factors in true balance with respect to each other is indispensable to the well-rounded personality.\* This gland in men gives rise to the anti-tired hormone, androsterone\*, as it also does in women at special times.\* By its part in maintaining muscular and membranous tone it permits the electrolyte (salt, acid and base) balance of the body fluids to stay at par.\* The ability to resist fatigue and the more general quality of systemic tone, involving proper nerve and muscle tone, are obviously the characteristic which give the personality courage and persistence,\* provided the other endocrine equipment is reasonably strong.

The gateway of the fuels, supplier of tone, normalizer of blood ionics, destroyer of fatigue, broker of courage, clearing-house for energies, or any number of similar terms might be applied to the cortex.

The pioneer type, whose relative numbers have dwindled with the disappearance of geographical frontiers, has always belonged to the strong cortical variety.\* Only occasionally did cowards ride in their midst. Oftentimes they found themselves deported to an alien climate (Australia, Plymouth Rock et al.) because of their stormy ways. They planted their cultures with the grimness that can only accompany fearlessness. They died behind wagon-boxes and at the Little Big Horn, and in the burning blockhouses across the face of America, because they had the courage of their convictions—they believed in themselves. Pioneers have splashed their blood across the pages of history with the same fearless zest it took to shatter the saloon-mirrors and bang the cattlerustlers and fight the sheepherders. From Alexander the Great to Saint Paul, and from Mark Anthony to Franklin D. Roosevelt, these chained giants have pulled against the bonds of all humanity.

What has reduced the numbers of this type among men? One of the greatest influences against the development of the entire endocrine system to full strength, is the lack of iodine in prenatal life. Because of thyroxine's indubitable control of the rate and degree of basic life-fire, its lack seriously impairs the chances for full development of the whole body, especially the key nervous and endocrine processes. Then too, once a child has been delivered, it is no longer possible to improve the equipment it possesses in its endocrine. Some day it may become possible to transplant endocrine bodies from other animals, but this involves such problems of nerve connecting, blood readjustments for the foreign tissue, and promoting of normal health in the transplant tissues, that American surgery may be fifty or a hundred years away from such an ability.

### The Medulla of the Adrenals

IT IS possible to live without the inner tissue of the adrenal glands. This part is the residence of anger, hate, fright, worry etc. Sympathins (substances produced by nerves and ganglia) seem to take the place of adrenalin, if the medulla is lacking.\*

Since the adrenal medulla is an emergency mechanism, which properly colors the personality only infrequently, it is not considered worth discussion, except to say that the habitual use of the medullary emergency reaction can and does destroy human personality in time.—John McCabe Moore.

In this third of a series of articles about the endocrine glands, the writer has marked all facts from his own observation with asterisks. He has also starred opinionative statements clearing up certain nebulous reasonings of orthodox endocrinology.

# Squeeze Play

by Craig Browning

"It was a scream—the expression on the cop's face when the ducks started across the street!"



**P**OKEY and me met up with this jerk in Oscar's Bar. Would that we never had, as my kid brother that went to high school would say. Not that this bum wasn't okay in his own way, and not that all the trouble Pokey and me run into wasn't our own fault in a way. But he made it possible. Yeah, brother! He made it possible!

We went in for a glass of beer about ten o'clock at night as we usually do. Pokey and me are boosters down at Whitey's card room. Generally the game fills up about nine-thirty, so we go out for a little fresh air and a glass of beer at Oscar's. Sometimes we meet

up with a stranger in town, and if we can steer him over to the card room there's five bucks in it for us. Yeah, you guessed it. The five bucks comes out of the chips the sucker **DOESN'T** cash in when he leaves.

Well, this was Thursday night. We went into Oscar's and sat down on a couple of vacant stools. The only trouble was there was a stool between them, and it was occupied by this screw, drinking beer and talking to himself kind of quiet.

Me and Pokey wanted to do a little talking ourselves and we had to lean over this guy to do it because we didn't want everybody in the place to hear us.



**It looked like a radio, but it wasn't! All you had to do was concentrate and things you thought about became real!**

We sat down like I said, and Ham—the barkeep at Oscar's on the night shift—brought us our beer. I took a sip to wet my tongue and leaned close to Pokey and said in a low voice.

"Whatdaya think?" (I had been discussing a new squeeze play I'd figured out when we came in, and was referring to that).

This jerk thinks I'm talking to him. He turns one stale eye in my direction and tries to bring my face in focus.

"You might be right," he says in a surprisingly reasonable tone of voice for a drunk. And then—oh Brother!—he says: "But you overlook the fact that because of the intimate coalition between the cerebral mass on the one hand and the oral and manual motors on the other, the repercussions of the cortical hypertrophy upon these motors has instigated the trespass from their legitimate preserve of the technological operations upon the ambit of visceral operations with dire contravention of the principle of intrinsic motivation."

After that he blinked his eye owlishly and again tried to bring my face into focus.

Well, that stymied me. Threw my mind out of gear, you might say. I might have ignored the whole thing as beneath my dignity except for the fact that just that afternoon I had read a story about a guy who meets up with a scientist with a gadget in a beer parlor just like this one, and makes a fortune off the deal they cook up over a glass of beer. I don't think this is anything like that, you understand; but I don't know what the guy's talking about and I can't let him get away with it without a try.

So I put on my most intellectual sneer and says:

"Oh, yeah? I suppose you got a machine that'll prove it!"

I wink at Pokey and take a big swallow of beer in a way that would imply I had successfully made the guy out a liar and the whole argument was finished as far as I was concerned.

He blinks a couple of times over this and I can almost hear his eyelids click when they come together. Then he laughs kind of knowingly and says:

"My friend, I have made a mistake. I did not realize you were intelligent enough to penetrate the basic fallacy underlying the operational principle of my exteroceptor deceptor. Your slighting reference to my machine shows that you have done so. But tell me—" He lurched into what he thought was a confidential, leaning position and lowered his voice to a hoarse whisper. "How did you do it?"

"Ho ho," I said, tossing my head playfully and draining my beer so that Ham could give me a refill. "You don't find out THAT easy. Show me the machine and I'll show you why it's what you said."

"Okay, okay," he answered soothingly. "Only with YOU I will stop calling it an exteroceptor deceptor and give it its true title. Interoceptor exciter. I will be very interested in your proof. Only don't try to convince me that it acts upon pathogenic potentials within a somatic sector. If that were so it would become autonomous and mutinous rather than subservient to its biological inadequacies."

He finished HIS beer with a blurb of finality as if to imply that he had posed me a stickler.

**I WINKED** at Pokey.

"This jerk thinks he's kidding me."

"My dear doctor," the drunk said, proving by a slip of the tongue that he lived in a nut house, "I have ten dollars that says you can't find an objec-

tively valid proof of a non-metaphysical nature that my machine is NOT exteroceptively operative in its motivating synaptic synthesization."

He fumbled feebly at his hip pocket. I raised my eyebrow at Pokey. He looked alarmed for a second, then quickly pulled out a ten dollar bill.

"Never mind your money professor," he said. "I'll back you to the limit. I'm convinced you're right."

"Thank you," the guy said gratefully. "I'm glad somebody believes me."

Pokey slipped me a ten behind the guy's back and I covered the bet, wondering just how much Pokey had taken off the sucker, and whether it wouldn't be a better idea to get out before he discovered his billfold had been lifted.

Shoving caution to the wind I said: "There's the bet. Now where's this machine of yours?"

"Follow me gentlemen," he said, rising and starting toward the door.

In answer to my questioning look Pokey said:

"Forty bucks."

That settled the matter. We'd already made a profit on the guy, so I could afford to spend an hour or two looking at his machine. We caught up with him.

"There's definitely a functional relation between alcohol and the Hysen-burg principle," he was muttering when we got up to him.

"Are you just finding it out!" I exclaimed with real friendliness.

"He's learning, ain't he!" Pokey said.

Between us we managed to keep him on the sidewalk, and after a few blocks he turned in at the entrance to the upstairs part of a two-story store building.

Up above was a swanky apartment, only there were framed graduation cer-

tificates hanging all over the walls in place of pictures. He made us look at each one of them while he proudly teetered on his heels. I'd heard of courses in being married, but this was the first time I ever saw a certificate of graduation as a bachelor. I was going to ask him about it, then decided that maybe it was just because he wasn't married. Something like the Miss for a girl. Maybe colleges were sticklers for that. Anyway, he was several different kinds of a doctor, too.

I sneered at the certificates like maybe I used them for wallpaper and suggested he quit stalling. He told us to sit down and he would be right back. While he was gone Pokey helped himself to the box of fifty-cent cigars on the coffee table. "Penny ante," I thought to myself, and left them alone.

After a few minutes the guy comes back with a thing that looks like a portable radio and sets it on the coffee table.

He does something to the knobs on the front of it and then frowns like he's thinking of something. The next thing Pokey and I know, a big elephant is standing in the middle of the rug calmly swinging his trunk back and forth like they do in the circus!

I GAVE a startled grunt and Pokey let out a squawk.

"Ha!" the jerk said triumphantly. "You didn't expect that, did you?"

"Not on only two glasses of beer," I answered. Then I laughed to let him know I was just being witty. "I haven't worked one of these things for quite a while," I said. "Show me how you work this one."

"Nothing to it," he said, stepping back so I could take his place. "All you have to do when it's on is think of something and wish it was in a certain spot, and presto, it's there!"

I concentrated on a glass of beer. Quick as a flash a glass with a mild head on it appeared on the coffee table. I picked it up and tasted it. It was just like that I always drank! The glass clinked when I set it back on the coffee table. Then I wished for it to scam, and it was gone. Just like that.

Well, from that instant ideas began to go around in my mind. I wanted that machine. Pokey wished up a beautiful blond that was in love with him. Immediately I kicked myself for not getting the idea first. Just for revenge I wished her out of existence while he was kissing her. You should have seen him with his lips all puckered and his arms embracing a hunk of ozone!

Then I put my plan in action. I concentrated on the thing and wished that the drunk professor would get the idea of giving it to me as a present. To cover up I wished for another glass of beer.

The beer came. I sipped on it and looked speculatively at the guy to see if my other wish was cooking.

He cleared his throat a couple of times and looked like a swell idea had just hit him.

"Why don't you take this machine along with you," he said. "You can play around with it and figure out your refutation. Then come back and show me."

"Thanks," I said carelessly. "I think I WILL take it and build up a good reputation." Then in my most cultured voice: "You may expect me back in twenty-four hours, professor."

I picked up the gadget and gave Pokey the high-sign. A minute later we were hightailing it out of there with our tongues in our cheeks, expecting the guy to come after us and try to take the thing back.

"Where to?" Pokey said when we were once again out on the sidewalk.

"Down to the card room," I said. "With this outfit we can't loose. All we gotta do is set it someplace in the room and the laws of chance will disappear. When we want a winning hand with everybody at the table tossing their chips our way all we need to do is concentrate on that."

"Then why go back?" Pokey said. "We got forty bucks. Let's go over to Lefty's game and use our own dough. Maybe we can walk out of there with a couple of hundred."

Two hours later Pokey and me each had a hatful of chips in front of us. Our reputation was building up. And how! I had royal flushes in a row once, then slacked off so that no one would get too suspicious.

Finally we quit and counted our chips. I had a hundred and eighty-four dollars worth, and Pokey had a hundred and ten, so together we had nearly three hundred dollars worth of chips.

THAT was when the trouble started.

Lefty refused to cash in. He said he never had more than a hundred and fifty dollars worth of chips in the place, so somebody had been planting chips that he hadn't sold. He examined all the chips. They had the house stamp on them, so after quite an argument he finally gave in and paid us. We had to threaten to call in the cops first, though.

When we got to the door I wished that all the chips that weren't real would vanish. The last thing Pokey and I heard was a shout from Lefty that you could have heard a mile away. We ducked down the alley and hid in a doorway until things quieted down.

That took about a half-hour, because it seems we actually had won all the real chips on the table. When a player went broke he wished he had some more chips and, presto, he had another stack. Being a poker player the guy kept his

mouth shut and used the chips.

Well, when all the phony chips disappeared a couple of the players had quite a stack in front of them, and it disappeared too. When Lefty saw the pile of chips he had just paid off on dwindle to less than half their former amount he had run after us. The players had thought he was trying to run away and had taken after him. It was quite a riot until the police came and carted them all down town.

I watched the wagon back up to the door and cart them away, and I patted the Exteroceptor Deceptor affectionately and chuckled. I had plans.

Pokey and I split our winnings and called it a night. We agreed to meet the next morning bright and early. Not later than eleven-thirty.

I saw no reason to cut Pokey in on my little scheme so I got up at nine and put on my best suit and a clean shirt so I'd look respectable.

Then, with the machine under my arm I went down to Eli's pawn shop and picked out a man's diamond ring with a chip diamond in it. Eli was a friend of mine so I didn't try any funny stuff there.

I took the ring back to my room and experimented with it until I had a diamond in it that was worth at least five thousand bucks.

After that I went up town to the Mosely Loan Bank. I was a little nervous about what old man Mosely would see when he turned his glass on the diamond, but he seemed satisfied with it.

When I signed my name to the pawn ticket for three thousand dollars the pen shook a little. I wasn't used to big time stuff.

Mosely wanted to send a boy to the bank and get the three thousand.

"I don't think I got that much in the cash register," he stalled.

"I'm in a hurry," I said. "Don't tell me you operate this joint on a shoe-string. Give me the three thousand and make the next guy wait."

"I'll look and see if I have that much," he said soothingly. He opened the cash drawer. Sure enough he had the three thousand.

He counted it out in tens, twenties, and fifties. It made quite a neat pile. His eyes had a strange glint in them as he handed the money over to me. Then he sealed my ring in an envelope and put it in the safe.

I thought how sick he would be three months from then when I didn't show up and he opened the envelope and found he had loaned three grand on a ring worth only twenty bucks on the retail market.

The skin on my back crawled as I left the loan bank. It would take a little time for me to get used to the big time. I could see that. But there was nothing to be afraid of. With the Exteroceptor Deceptor everything would be fool proof.

I got to the corner where I was to meet Pokey a half-hour early. My imagination was busy thinking of the possibilities it opened up.

Cars were going by almost bumper to bumper. I wondered how much of a jam a stalled truck would make in the traffic. With a chuckle I waited until there was a break in traffic and then wished for a truck.

A big moving van appeared and stalled so that it blocked the traffic both ways. There was a squeal of brakes and horns started to honk. The traffic was piling up for two blocks in both directions!

**F**INALLY one guy got out of his car and went up to the truck.

"No driver!" he yelled disgustedly. The word went down the line.

Pokey came up about then and took in the situation, looking at me with a broad grin. I felt of the three thousand bucks in my pocket and grinned back at him.

The joke about the truck wouldn't last forever. The scream of police sirens could be heard coming, so I wished the truck to disappear. There were a lot of foolish mystified faces as the drivers of the cars climbed back behind their wheels and got going.

Briefly I explained to Pokey what my idea was. We would go to all the banks in town and present a dollar bill at the teller's window and wish it LOOKED like a hundred-dollar bill. Also we would wish all his ten-dollar bills would look like ones. We would ask the teller to change our "hundred-dollar" bill into "ones." On each deal we would net nine hundred and ninety-nine bucks! Why? Because the bills we got in change would be ten-dollar bills after we stopped the effects of the machine on them.

How could we miss?

We went into the First National Bank on Main Street. I carried the Exteroceptor Deceptor under my left arm and let Pokey handle the financial transaction while I concentrated.

I could see that Pokey was very nervous. He got more nervous each time somebody in the line finished his business and left, and the line advanced another step. By the time it was Pokey's turn at the teller's window he was positively quaking.

A tall guy that looked like the bank president had come over and was looking at Pokey with a frown of suspicion on his face.

When Pokey laid what looked like a hundred dollar bill on the counter this guy stepped up and picked it up. He looked it over carefully while Pokey sweated some more.

Finally he looked at Pokey and said: "What did you want?"

"I jist wanted some change," Pokey squawked, his voice cracked with terror.

"Hmm," the guy said. "Looks okay. What's the matter with you? Sick?"

"Yeah," Pokey said. "Yeah. That's it. I'm on my way to the doctor's."

The guy shoved the bill through the bars and said:

"Give him his change."

"How do you want it?" the teller asked politely.

Pokey licked his lips uncertainly and looked at the bill. I looked too. It had changed back into a dollar! I knew right away what was happening. Pokey was so afraid it would be a dollar bill that his fear was as strong as my wish.

We both stared, and the bill changed back and forth from a hundred to a single like a neon sign going on and off. Finally I made it stay a G note long enough for Pokey to croak out that he would like it in singles.

He was smart, though. The way he said it the teller would take it for a joke if he noticed it was only a singleton.

When the teller started counting out a hundred bills that looked like dollars Pokey relaxed a little. From then on the bills stayed the way they looked.

After what seemed like a century the teller had them all piled up and all Pokey had to do was reach out and take them.

His hands shook so much he could hardly hold on to them.

"I think you HAD better see a doctor," the teller said.

"Yeah," Pokey said hoarsely. "Yeah. I'm gonna do that."

He stuffed the bills into his coat-pocket, and I almost had to carry him out. Outside he collapsed on the run-



ning board of a parked car.

"You're some guy!" I snorted. "No guts!"

"Let's try something easier," Pokey said weakly. "I'm scared of banks."

He pulled out the pile of bills and looked at them. They were all tens. A hundred of them. I knew that success would sink in and in a while he would want to get another bundle of them, so I suggested we have a beer someplace and relax a little, then decide what to do next.

He agreed to that. We had three beers before he was relaxed. He began to feel cocky. He wanted to play with the Exteroceptor Deceptor a little himself, so I let him take it.

WE LEFT the beer parlor and walked down the street. I could see that Pokey was beating his brains for an idea. Finally his face lit up.

He stopped at the next corner and frowned in concentration. The next thing I knew there was a duck followed by about a hundred little ducks in single file hopping off the curb and starting across the street.

Tires shrieked as cars came to a stop. The mama duck and her brood marched slowly out into the middle of the street and stopped, sneering at the stopped cars. Drivers grinned back at her. The cars in back were honking their horns.

A cop came running up and asked one of the motorists what the blank blank was holding him up. He pointed cheerfully toward where the ducks had been. Pokey grinned and made them disappear.

He was a little slow, though. Both the cop and the driver were looking right at them when they vanished. The cop took off his cap and scratched his head thoughtfully. Right away I knew something. This cop knew about the

vanishing truck and was beginning to put two and two together.

"We better scram outta here," I said to Pokey under my breath. "I think that cop smells a rat."

"That's what comes of you not taking a bath for the last two weeks," Pokey wisecracks; but he hands me back the exteroceptor deceptor.

I put it nonchalantly under my arm, and Pokey and me start walking like we were just innocent pedestrians. After a few steps I glance back to see if the cop is suspicious.

I practically poke him in the eye with my nose when I turn my head. He is not only suspicious, he has his head stuck forward a foot and a half and he is keeping step with us, his billy club swinging ominously like all cops can make them swing after a few years practice on some beat in the sticks while they are working up to the racket beats. Yes sir, he is an expert.

That is where I lost my head. I forgot all about the gadget under my arm and what it could do. So I did what anyone would do with a bull breathing down the back of their necks and his hind feet digging gouges in the sidewalk while he warms up his disposition. I wished I could vanish. Not me and the exteroceptor deceptor and Pokey. Just me. And I did. But I should have wished I was some place else instead of just vanishing.

The cop did some fast work. One minute he was looking at me, carrying a portable radio under my arm. The next minute the portable radio was bobbing up and down like someone was carrying it, but he couldn't see me. So he conked the spot where my head had been and by some strange coincidence it was still there even if he couldn't see it. At least that's the way I figured it later on when I woke up.

Well, in the excitement of seeing me

vanish and having his club connect with thin air and having me appear again when I fell and the exteroceptor deceptor broke on the sidewalk, Pokey must have scrambled. I don't blame him. I would have done the same thing.

**I** WOKE up in the emergency ward at the police station. It seems the cop hit me a little too hard and I was out cold for a couple of hours.

I've always been fairly honest up until I met up with the professor in the beer parlor. I guess honesty is the best policy in the long run, so while I was waiting for my turn in police court I decided to make a clean breast of the whole thing.

I had the three G's from Mosely's Loan Bank and five hundred of the thousand from the First National and ten of the twenty from Pokey's picking the professor's pocket all on me when I was brought in.

"That can be returned to its owners and I plead guilty to everything and throw myself on the mercy of the court. That's all, your honor."

"Officer Lacey, take the stand," the judge said, remaining serious by an effort of will.

The policeman took the stand and was sworn in, but it was noticeable that his tongue was superstitiously pressed against the inner side of his cheek as he promised to tell the-truth—the-whole-truth - and - nothing - but - the - truth-swelpme.

"Now, then, officer Lacey," the judge said slowly, smiling as at some inner thought. "Did this man have the sum of three-thousand five hundred and ten dollars on him when he was booked?"

"No sir, your honor," the policeman said.

"When you arrested him," the judge

went on, "was there anything answering to the description of this exteroceptor deceptor in evidence?"

"There was a portable radio, your honor," came the answer.

"Are you sure it is a portable radio?" the judge asked.

"Yes, sir," the officer said, smiling. "It is a Zenith. Here is its serial number. It was reported stolen from Crum's Department Store two weeks ago." He handed the judge a card with the serial number written on it.

"Now tell me," the judge went on. "And be very careful of your answer. Did this man vanish before your eyes, and did he reappear when you struck him?" There was a twinkle in the judge's eyes.

Small beads of perspiration glistened unnoticed on officer Lacey's forehead; and also unnoticed, the index finger of his right hand, concealed under his left hand, made slight motions as if he were crossing himself as advanced atonement for a sin about to be committed.

"No, sir," he said.

The judge already held his gavel in the air. Simultaneous with the "No, sir," the gavel came down sharply.

"Case dismissed," said the judge. "Prisoner is transferred to the jurisdiction of the court held regularly on Mondays and Thursdays on the tenth floor of the County Hospital. He will be transferred to the men's observation ward in the same location not later than five o'clock this same day. Next case."

Officer Lacey glanced pityingly at the small, miserable looking man with the unpressed blue and red checkered suit (that's me) and then hastily turned away.

"It was him or me," I heard the officer mutter to himself. "Maybe it should be both of us, but I have me wife and children to think of."

THE END



## SPACE PILOT'S PROBLEM



**A**S LONG as the Lorenz-Fitzgerald Contraction Theory has been with us, both in fact and in fiction, few have ever really dared try to explain in concrete terms what would happen to an object traveling at light-speed or over.

The physicist in one breath explains that an object going at light-speed would reach a condition of perfect two-dimensionality in the direction of motion . . . then in the next breath he adds that it would also reach a condition of infinite mass. Now obviously on a physical basis an object in a perfect two-dimensional condition could have (according to our space-frame) no mass at all . . . since mass or volume is a condition dependent on three dimensions, the dimensions of a solid. So the physicist rather than going into Einstein and space-frames . . . merely states that an object "cannot" exist at the speed of light.

On the other hand, the science-fictionist must take his space-ships across the galaxy at above light-speed, or make his characters live to an incredibly ripe old age between one galaxy and the next . . . so he, like the physicist begs the issue . . . and invents a super-drive that will nullify the effects of light-speed.

With space travel possibly in the offing for the next generation, however, the serious astrophysicist must picture what may happen if a space-ship freed from limits of gravitation and friction does attain this speed

As speed increases, relative size in the direction of motion decreases. But horizontal diameter, at right angles to the direction of motion, does *not* decrease. So as our ship nears light-speed, its hull, its crew and its equipment gradually approach an ideal condition of two-dimensionality. At perhaps 180,000 miles per second the ship begins to look like a pancake, the crew inside, if their vision is unaffected by stress, will begin to look like animal crackers to each other. Now we must take it for granted that this dimensional alteration is super-mechanical . . . for a true mechanical contraction would shatter men and machinery . . . and we already know from experience with high-speed machinery that such destruction does not occur merely due to speed contraction. Experiments with high-speed rockets have already proved that a fairly sizable contraction will not produce a crushing effect on the traveling body . . . for the entire contraction is relative, and no one object is contracted out of proportion to another . . . except in cross-section.

Eventually, at light-speed, a condition would be reached where the men moving about the ship could move only at right angles to the line of motion, and the ship would be a true disk, having no length whatsoever. Here again we have a clash of theories . . . for a man, by walking away from the direction of motion *should* subtract his walking speed from the light-speed of the ship and thus recover his three-dimensional condition

slightly . . . but when the man and the ship are already in two dimensions, he cannot extend himself into the third by walking toward the rear of the ship . . . for ship and crew are all in one plane.

And meanwhile, how is the driving-jet or atomic blast functioning in two-dimensions . . . this we must mercifully ignore, and assume, somehow, that the drivers *are* still functional. Anyhow, when light-speed is somehow reached . . . and then surpassed . . . the ship will turn inside out like a glove, all in a relative way so that the occupants are still feeling no pain . . . and the ship will immediately begin to lengthen back into three dimensions as it climbs above light-speed . . . only hindside to. Ignoring the fourth-dimension (which is too easy an explanation for everything) we can say that the ship at 186,000 miles per second, plus 186,000 miles per second, would regain its original length . . . but in reverse . . . but it will never reach this condition. Why? Because the propulsive force, jets, atomic blasters, or even anti-gravity mechanisms . . . which have been sending out their propulsive force opposite to the direction of motion, will now be at the traveling front of the ship, acting as brakes to oppose the speed of the ship the minute it pushes its nose above light-speed.

The drivers will throw it back along its original course until its speed is again slower than that of light, after which, once again in normal position, they will drive it forward. Thus the ship will bounce back and forth on either side of the critical speed until (1) the crew decides to be conservative and travel at less than light-speed; (2) the fuel gives out; (3) the horrible effects on the crew of being bounced back and forth between two and three . . . and maybe four . . . dimensions, causes them to head for the nearest stellar equivalent of Bellevue or Kalamazoo.

What about free-falling up to light-speed and over, with power cut off, relying on initial acceleration and freedom from friction and gravity to give you infinite speed? It might be the answer. Yet only through that abstruse fourth-dimension can you explain how a ship coming up to and across light-speed in a free fall, could one minute have its nose pushing *away* from earth, and the next instant with attainment of over light-speed, have that same nose pointing *toward* earth . . . and yet not have the direction of motion completely reversed.

The part of the L. F. Theory about an object at light-speed attaining infinite mass is an even worse stinker for space-travel. A solid reaching the speed of light and its coequalivalent of infinite mass, would be boss of the Universe . . . a super-cosmic gravity magnet that would pull everything in the Universe toward it, from the smallest grain of spatial dust to the mightiest sun. The Universe would become merely a solid mass of matter

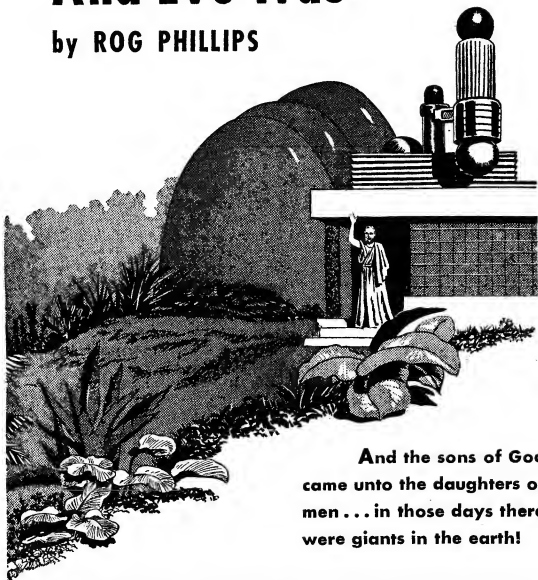
(Concluded on page 178)



There was a flash of white as she waved back at him

# And Eve Was

by ROG PHILLIPS



**And the sons of God  
came unto the daughters of  
men . . . in those days there  
were giants in the earth!**

**T**HE giant ship hurtling through the inter-stellar void looked from a distance like a sun. Two thousand miles in diameter, its transparent leaded plastigell casing allowed the interior lights to send their rays out into space in all directions. Thus, the sunlike appearance from a distance.

At the moment the ship was spherical in shape. Yet it could change, become long and cigar like, or put out arms like a pseudopod. This was made possible by the properties of the plastigell, and the arrangement of the skeleton girders of the ship.

The girders were fitted together in ball sockets so that they could move

in all directions relative to one another. The plastigell had the peculiar property of contracting under electric current, stretching to great lengths under small tensions, and being practically impossible to break.

It made an ideal skin for the giant ship. A chance hit by a fast moving projectile could not pierce it. Instead, the skin would give, absorbing part of the force of the hit. The inner walls and pivoting girders would further absorb more of the energy of the hit, until the missile came to rest. Then the rubberlike ship would return to its normal shape, throwing the bit of debris back into the void the way it had come.

The ten foot thick outer skin and the mile thick honeycomb of girders and plastigell walls on its inner side made the ship impregnable against any form of collision. Within were four billion cubic miles of gravity-free living room! If it were made into rooms with mile-high ceilings it would provide more than twenty times as much living surface as the Earth.

This, in rough outline, was the excursion boat of Seth, the metamorphosite, and the thirty billion under his command. Built a brief three thousand years before in the huge shops of Hodn, a district of the great Nirvanian Republic of Harmuts, this was its maiden voyage. The materials that had gone into its construction had been gathered from the drifting asteroids of interstellar fields. Asteroids of pure material crystallized out of the ether slowly over millions of years and ready for use.

The metamorphosites are the most ancient of all the races in the universe. Their origin is lost in the dim infinity of the past. Some say they ALWAYS existed, yet how could that be? The most accepted version is that they

originated on some planet and attained to civilization many times, sinking back to start over again, traveling from planet to planet, and sun to sun, before they at last gained the experience and know-how to form the first of the giant Nirvanian Republics in interstellar space, away from planets and suns. Thus, their origin was forgotten long before they became a stable civilization.

The individual metamorphosite is an almost unbelievable creature. Today, on Earth, we have the butterfly and the moth that are born as caterpillars or worms to live for a season as crawling things. Then they build a tomb about themselves and give their flesh as food for the winged insect that will grow from the second seed, to fly through the air with wings of flashing colors, and reproduce. The worms cannot reproduce. It is the metamorphosite adult that reproduces.

Yet there is a form of salamander which is born as a tadpole, living in rivers. It undergoes metamorphosis and changes from a tadpole to a salamander, and forsakes the water to live in arid, hot deserts, returning only to lay its eggs in the stream in which it was born.

Experiment has shown that the tadpoles of this race can reproduce if they are prevented from leaving the stream, and that generation after generation of tadpoles can pass without ever becoming the adult salamander; but when once again the barrier is lifted so that the tadpole can climb to dry land it will still be able to shed its tadpole body and become a salamander.

The metamorphosite race is even different than this. Born to one form or shape, it reproduces normally before changing, and in the adult form it is unable to reproduce. Perhaps on Earth there might be some insect or

creature that is this way.

The adult metamorphosite may or may not be immortal. It lives at least for millions of years in full possession of all its faculties. Eventually it tires of ordinary activity and retires to regions that are forbidden to more youthful members. If it dies, no one knows about it. If it doesn't die, then the first metamorphosite ever born is still alive!

**P**ECULIAR are the workings of nature! There are plants in the fields that are born in the spring, to grow into beautiful things with rich foliage and colorful flowers. The flowers wither and their stems grow brittle, yet the plant lives on, its foliage drinking in the rays of the sun and the glistening drops of morning dew.

At last the frigid touch of winter blights the green leaves and the plant dies, to live no more. It is gone, leaving only dead stalks and withered leaves which break and crumble and go back into the soil and become a part of it.

But something lives on. It is the seed, which may be large and heavy and drop near the parent plant, to come up in the spring; or which may be microscopically small and be carried by the winds for thousands of miles before alighting to merge with the soil and await the warmth of the spring rains.

Even more wonderful than this is the metamorphosite. A caterpillar doesn't carry within it the adult butterfly. If the caterpillar is crushed, the butterfly is crushed with it and never sees the light of day. If the plant lives until its flowers wither and the flower stalks grow brittle, the plant may then be crushed at any time, but the seeds will live to grow into plants in the next spring.

The adult form of the metamor-

phosite lives within the embryonic body and is full grown before the cruder body is born. It is held there, a prisoner, to partake of the life and experience of its prison. When the crude, first form is crushed the adult metamorphosite is freed unharmed, to begin its independent existence at once.

If it has been held long in the cruder form as a prisoner, the time hasn't been wasted, because it partakes of the awareness of experience of its first form, and is set free more able to cope with the problems of existence. Its intelligence is active and dominant even in the life of the cruder body that first housed it, and it carries its memories with it.

If the crude first form is crushed early, the adult form of the metamorphosite is cast into the world with little experience to meet the problems of its existence. Then it must be guided and taught by its more experienced elders, and led into experiences that will enable it to acquire self-reliance and self-confidence.

Such a metamorphosite, lacking the experience that can be gained only in the cruder form; because of a premature destruction of that form, is classed as an infant, and is grouped with other infants to go through special teachings and experiences so that he may more easily learn to take his place as a useful member of the Nirvanian Republic to which he belongs. On his home planet the infant can rapidly go through the training he missed by his premature graduation to adulthood so that when he turns his back on the planet to assume his role as a full-fledged Nirvanian he is as experienced and wise as his more fortunate brothers.

Sometimes, though, a planet meets its inevitable end; destruction by collision with another heavenly body. Then there are millions or billions of

infants freed without any possibility of going through the normal training routine. Of such were the millions on the mighty *port-au-gon*, the space ship *Renawick*, three thousand years along on its journey through the galaxy, on a voyage of adventure and training for the development of those aboard.

THE ship was itself a huge world, artificially made, and its population of thirty billions were as varied in their skills and interests as are the nations of Earth today. But more, their forms were more varied than are those of all the races of creatures on Earth, and all were wise and skilled with the learning of thirty centuries or more in schools and in travel.

In the *Renawick* were many districts or divisions called mansions, and in each mansion a group of several thousands lived together, working and playing and learning as a single group, just as Earth people live in cities, go to different colleges, and unite into groups for various activities.

Each van, or group, took the name of the mansion or section of the ship in which they lived. Rivalries were strong, and there was a continual succession of games and activities in which each van strived for superiority over all the others.

This rivalry extended to learning and architecture, and each mansion was a veritable mansion in fact, with arches and roadways of ethereal beauty, laboratories in which were created machines of all descriptions, and astronomical stations in which the stars and planets were studied by distorting the outer skin of the ship to form a giant lens which magnified with greater exactness and magnification than the largest of Earth telescopes.

The *Renawick* had been traveling without pause for twenty-odd years.

There had been a constant stream of visitors from the regions the ship had passed through, and from these they had learned that they were now nearing the capital city of Harmuts.

This city, Fow'sang, was a vast world built along the same lines as the excursion ship, *Renawick*, but with a diameter of a million and a half miles. Circled by a large number of orbital suburbs, each thousands of miles across, the entire unit was peopled with thousands of billions of inhabitants from a hundred different worlds which had long since met their end in dissolution or disruption.

HA'JAH moved into the focus of the giant lens formed by passing electric current through a section of the plastigell skin of the *Renawick*. An exclamation of awe involuntarily escaped his lips as he beheld the sight brought to his eyes.

Far out in space was a giant sun stretching all of twenty degrees over the center of the heavens. Yet so soft was its light that it soothed the mind and spirit of Ha'jah as he looked. It beckoned as the sight of home might reach out and draw the wanderer.

Around this center jewel were decked a hundred small dots of light, some almost touching it, and others so far away that they seemed to be merely ordinary stars situated far beyond the cluster of Fow'sang.

The lights of this cluster glimmered with a melody of changing color, each note of the melody being a blended chord of light so inspiring that Ha'jah became lost to his surroundings and lived only for the next enchanting tone.

"Out of the way, dru'k," exclaimed

---

<sup>1</sup> Dru'k is the original word for drunk, or drunkard, and signifies anyone who is so lost in some experience or habit as to not have the will to depart from it.



Haron who was next in line to get a glimpse of the galaxy-famous spectacle.

Ha'jah sighed regretfully and stepped back. He would have given much to be able to remain with his eyes glued to that sight for a solid week. Haron took his place and experienced the same feeling.

When he gave up his place to the next in line he joined Ha'jah who had waited for him, and the two dived from the platform, giving a strong shove that would carry them across the center of the ship in the general direction of Spotah, their mansion.

"What a sight!" Ha'jah exclaimed after they had been drifting for several minutes.

"To think that we can actually be there in a few more hours and experience the exhilaration of bathing in the full rays of the chant of the es'enaurs<sup>2</sup> of Fow'sang!" Haron sighed in anticipation.

"It's too bad our stay is limited by law," Ha'jah said. "I think I would like to stay in such a place as this forever. But then, I've said that about every capital city we've stopped at so far, and so has every one of us."

"That's right," Haron admitted. "That's why our stay is limited by Nirvanian law. We may visit, but not join, any capital region on our journey. If it were otherwise the entire galaxy would soon degenerate into a few million capital centers of unorganizable proportions, filled with imperfectly developed citizens who would lose their will to grow, and bask lazily in the delights that are meant to be stimulants, not drugs."

Directly ahead of the two gliding figures a huge archway appeared. Two hundred feet wide at its base, it rose

straight for six hundred feet, then curved gracefully to come to a thirty degree point three hundred feet farther up. In this bow a delicate lacework of varicolored plastigell was woven in graceful pattern.

Revealed through the arched opening was a hall a thousand feet deep, with floor of pale blue, translucent material from which rose pillars of pastel pink to broaden and merge far above into a deep blue series of domes where bright pin-points of brilliance simulated the heavens as seen from a planet on a clear, cloudless night. This was the entrance hall to the mansion of the van, Spotah! The designing and building of this mansion had taken the full energies of every member of the van for nearly a thousand years during the first part of their journey through space.

**H**A'JAH and Haron touched the pale blue surface of the floor a few feet inside the entrance arch, then turned to look back the way they had come. A thousand miles across, the hollow center of the *Renawick* permitted the roving eye to see the artistry and architecture of the many mansions, the creative effort of all the vans of the ship.

Within the space of this center sphere were played the games in which the different vans vied for superiority while those not in competition watched from their entrance halls. When games were not in progress this center space provided direct access from one mansion to any other.

Within and behind each portal were the cubic miles of workshops and places of study and learning, and the individual cubicles of the members of the van.

Where it joined onto the elastic cables that tied the resident sphere to

<sup>2</sup> Musicians who have devoted centuries to the mastering of every form of music from audio to light frequency.

the skin structure of the ship, the thousands of boathouses formed a honeycomb containing *piedmazrs*<sup>3</sup> and small fire ships. These could leave the *Renawick* through openings in the outer skin which were enlarged and contracted by the electrical property of the plastigell, so that when closed they were gas tight, and when open they would allow a ship fifty feet across to pass through easily.

Gigantic though this ship might be, Ha'jah and Haron knew that it was smaller than the smallest of the suburban spheres circling the gigantic sphere of Fow'sang, and that in a few hours the *Renawick* would be settling into one of the ports of the twenty-seven trillion square miles of surface of the cosmic giant. The *Renawick*, with its insignificant two thousand miles diameter would make hardly a quiver in the thick plastigell hide of the monster city.

"I imagine they'll shoot out a pilot beam before long to guide us in," Ha'jah said, watching the moving dots which were others leaving the telescope platform to go to their respective mansions.

"I think they're sending a pilot ship out," Haron said. "I overheard Seth saying something about that while you were in the focus of the telescope."

"Why the special honor?" Ha'jah asked, surprised. "Pilot ships are only sent out to escort high officials, usually."

"I wouldn't know," Haron said dryly. "Maybe we are to be put to work on some project. So far our journey has been more or less aimless. But it can't go on that way forever!"

"If it does we'll get in a rut," Ha'jah commented with a chuckle. "I, for one, would like some real excitement, and a lot of it. In three thousand years

we have grown expert at many things. Maybe it's about time we were turned loose on something more than shaping plastigell into pretty figures and playing at games where we have developed such perfect teamwork that the score is always nearly even and errors in judgment are so rare as to be almost nonexistent."

"We've been at that so long," Haron said wistfully, "that offhand I can't even imagine something that would offer excitement."

"I can," Ha'jah said emphatically. "I'd like to land on some planet. One that is wild and undeveloped"

"Why?" asked Haron in surprise.

"Well," Ha'jah said, "for one thing, I would like to study thousands of different rp's.<sup>4</sup> To me an rp, the selecting by a mindless molecule of materials from its surroundings, to incorporate them in its structure and build itself a twin from which it separates, is by far the most wonderful of all actions in the universe.

"At one time there is a molecule of a certain type in a medium of all kinds of other molecules. By means of its basic properties alone, without any

<sup>4</sup> Rp: reproductive property. This is essentially a type action in chemistry, the basis of all living forms, yet not truly recognized by science, which insists on picturing life as some wonderful and unknowable "elixir" or "elan vital" of the universe.

Just as a catalyst is a substance whose presence speeds up or makes possible a certain reaction, without losing itself or actually entering into the reaction, so also a molecule with rp must ordinarily be present for any more molecules like it to be produced. It is different than a catalyst in two ways. (1) It enters into the reaction, becoming successively different substances until in the last step a dual molecule separates to become two molecules of the original type. (2) It can form the basic substance in a simple reaction which results in a new type of substance different from the original, which may or may not have rp. These two properties, and these two alone, account for the evolution of all life forms from the simple, original substance having rp, produced in the atmosphere or seas of the earth when it first cooled.

<sup>3</sup> Rowboats.

thought or consciousness or memory, it shies away from everything until at last it finds, by blind chance, just the right atom or molecule to form the first step in the process of reproduction. Then it loses its former identity and becomes something else which moves about and sets up an attracting pattern of fields which will draw in only one type of molecule or atom and repel all others. Inevitably it meets and attaches itself to this desired unit, to again change. Step by step this goes on, until finally the last phase is reached, when it splits, and no one could tell which of the twins that come into being was the original!"

"Yes," Haron agreed, "I have watched that, too. It certainly is a poetic series, though usually too slow to hold the interest. Strange, how such a simple theme underlies all corporeal synthesis. We, with all our universal wisdom, cannot synthesize one of our members and bring him into existence directly. It is only on dense planets, where this rhythm of *rp* goes on and encompasses all possibilities of mutation that we can be created!"

"It's just as well that it IS that way," Ha'jah said simply. "If it were not that way we might think we were all-wise and self-sufficient, and that the vast Body of the cosmos were mindless and blind. As it is, we have a constant reminder that we are just a part of the All Being, and that only so long as we are attuned to its harmony and rhythm, and banish all self-desires that are not in accord with the spirit of the All Father, can we hope to live in harmony."

THE alarm bell vibrated throughout the *Renawick*. The pilot ship had been sighted. It was approaching from directly ahead.

Almost before the alarm bell had

begun to ring the entrance port that opened all the way into the hollow center sphere of the *Renawick* appeared in the plastigell and widened until it was half a mile across.

Then there was a blur of motion which came to an abrupt halt in the exact center of the sphere and became visible as a good sized fire ship. At once the entrance port began to close.

The fire ship turned about slowly until its forward end pointed toward the mansion of Seth, the master. Then a small opening appeared where the forward point of the cigar-shaped fire ship had been and expanded until the whole forward skin of the ship had folded back.

Exposed to view was a huge throne-room whose beauty made the mansions of the *Renawick* seem as amateurish as they really were.

In the center of a translucent, deep purple bowl was a platform of blue-white diamond, a hundred feet across. In the center of this were two thrones of flawless ruby. In one sat a woman in flowing white robes. Her beauty surpassed the wildest dreams of those who beheld her. This was Etisyai, chief factor of Harmuts.

On the other throne sat a man, broad-shouldered and high of forehead, his long, graceful hands in idle repose on the ruby arms of the throne. This was Ya'tiahaga, the brother of Etisyai, high commissioner of Fow'sang.

On either side of these two, and forming a crescent with the two thrones as the center, were seven men and seven women—gods and goddesses in their own right.

These faced the entrance hall to Seth's mansion, now transformed into a throne-room in which Seth himself formed the center of a similar crescent.

Etisyai spoke, and her clarion voice could be heard throughout the ship,

as the sound of tinkling bells and singing brooks.

"All hail! In Jehovah's name and in the love of Harmuts, Orian Chief of Harmuts, by whose grace you are infant subjects of his Nirvanian Republic, we come to welcome you."

Seth stood up from his throne, his face a mixture of emotions, and spoke haltingly.

"All hail, O emissaries of Harmuts, Chief of Orian worlds! In Jehovah's name we welcome you. I know not why we are honored with this welcome by such distinguished personages, for we are too insignificant for you to even bother to be aware of, as existing. Yet it is not for us to question.

"Come, O Etisyai, and your brother and all your friends. Honor my throne and my ship. Take it for your very own. Whatever might be your will, that shall we do, and willingly!"

Etisyai stood up. As she arose her es'enaurs began a strangely intoxicating song, whose simple melody carried in its subtle undertones an invitation of love and delight, of rhythmic enchantment that stirred all who heard it so that before long the thousands of cubic miles of clear space in the center sphere of the *Renawick* were filled with millions of gyrating, spiraling, sweeping dancers, whose movements, interpreting the music and keeping time with it as it passed them, made a mass picture of undulating, moving parts in which the rhythm began at the center, the hovering fire ship, and radiated outward 'til it reached the arched facades of the ship's mansions.

Skillfully blended into the music was a melody of coruscating light that seemed to emanate from the shimmering diamond of the throne platform. Haunting perfumes drifted through the atmosphere, heady in their effects, and of a potency never before experienced

by the wayfarers.

If this was a taste of the wonders of Fow'sang, how could any of them ever consent to leave the jewel city of Harmuts!

AS THE entertainment went on the *Renawick* sank slowly to the surface of Fow'sang. When it was still a thousand miles above the surface, the horizon of that gigantic globe extended seemingly to infinity. So vast was Fow'sang that even though its density was rarified it exerted no small attraction toward the incoming excursion boat of Seth.

Faster and faster fell the *Renawick* until it seemed it would meet destruction against the flat surface of Fow'sang. At the last instant a tremendous opening appeared, and the two-thousand-mile globe passed through, to emerge abruptly into Fow'sang itself where architecture and landscaping defy description and are the work of master craftsmen of millions of years experience in creation of all things.

Here were the museums of all past eras, and pictures in three dimensions, depicting every detail of whole planets to full size in solid imagery so real that one might land on the planet image itself and explore, and never realize that it was a mere image and not a reality!

Here were the libraries containing the history of all the galaxy for millions of years, including every thought and experience of all the inhabitants of millions of worlds, and the doings of the interstellar departments and cosmic planners who built worlds and destroyed them.

Here was All Knowledge, and All Wisdom, and the art and highest reaches of exalted thought of which any race could be capable; so much that to the infants of three thousand

years of interstellar life and experience, and no memories of corporeal life, it was mostly beyond understanding and left them speechless and subdued.

AT LAST the *Renawick* and her passengers came to rest in a cradle over which was superimposed the imagery of a landscape from a giant world. They emerged from the ship onto a plateau that overlooked a giant waterfall five miles across at the lip, with foaming white falls that dropped hundreds of miles to dizzying depths with a roar and a thunder that were soul-shaking in their intensity and depth.

The plateau was fenced in with giant jungle growth through which creatures hundreds of feet long and weighing thousands of tons wandered, and in which titanic struggles were seen between the beasts, so fierce that they toppled the giant trees as if they were blades of grass.

So real did it seem that when the tail of one of the struggling creatures swept fiercely across the flat expanse of the plateau, the millions from the *Renawick* jumped skyward in frantic alarm, while the hosts of Etsiyai remained undisturbed, letting the imagery pass harmlessly through them, and laughing in delight at the alarm of the visitors.

Sheepishly the visitors descended again to the platform.

They were full of wonder that a thing could appear so real and yet be nothing. They knew the principle involved in the projection of these three dimensional scenes, yet they had never before witnessed such a gigantic and terrifying spectacle.

"What is this?" Seth asked Etsiyai. "Does it have its counterpart in corporeality? Or is it the creation of a fantacist who draws upon reality and

enlarges its splendor and magnificence?"

"It is a counterpart of reality," Etsiyai said. "What you see actually occurred in every minute detail not long ago on a world called Portan which circles the dwarf sun, Philon, which is a giant positron two miles in diameter, with its surface densely spotted with negatrons which neutralize the field about it, and result in an energy sink equal to one of the greatest of ordinary stars. About this rare nucleus is a slowly growing layer of dense matter, added to constantly by falling substances which strike with velocities of hundreds of thousands of miles each second, to be disrupted and emit energy of intense whiteness."

"Then these giant creatures and this waterfall exist?" Seth exclaimed.

"Yes," Etsiyai smilingly replied. "Which brings us to the subject of your future journey. Not far distant from Fow'sang, and not long out of se'mu,<sup>5</sup> is a small planet which you may visit to study things as these at first hand.

---

<sup>5</sup> The vortexian (magnetic) currents of the Earth are toward the Earth in the daylight, and away from it at night; although their force is toward the center of the Earth (from the east) and toward the north pole afterward. The following is the result: For example, a pool is charged during the day with the positive current; during the night the negative current escapes upward from the water. The decomposition resulting therefrom is called se'mu (green scum), a mucilaginous substance which floats on the surface of the water. In some days' time this se'mu, by motion (from some external cause such as the wind), assumes certain defined shapes, crystalline, fibrous, and otherwise, after the manner of the configurations of frost on a window-pane. In some days after this, if the se'mu will be examined with a lens, it will be discovered that here are miniature trees, even forests, with vines and grasses, even though no seed previously existed in the pool. But, from this growth, which can take root in the soil, comes true seeds, which are capable of reproduction. Science has not yet (never will) discovered the nature of this process. Its name might be "Life." Thus, a planet in se'mu (capable of this primeval green scum in the water) is said to be capable of life.—Ed.

"There will be found waterfalls such as this one, only much smaller, since the entire condensation of dissolved moisture on this small world would not feed such a stream as this one.

"You will find giant beasts of all descriptions, though none more than a hundred feet in length. There are growths of vegetation of all descriptions, some climbing hundreds of feet heavenward.

"And in these forests there abound many creatures of all descriptions.

"The lands are separated by vast seas in which there are myriads of living creatures adapted to life in the water. And above one of the lands, called Pan, is a plateau which is named Hored, where you may stay indefinitely.

"From that place you may descend into corporeality and observe what you have missed in your experience at first hand.

"Is it the wish of all of you to accept this offer?" Etisyai smiled enigmatically as she asked.

"We accept most eagerly, O Etisyai," a chorus of millions of voices answered as one.

"Very well," Etisyai went on. "According to Nirvanian law your acceptance absolves me of responsibility for your future except insofar as I volunteer to help you. I must warn you, however, that the same law holds for you in your coming experiences. Nirvanian law will bind you to whatever you may do until it is undone or made perfect. Heed this warning well.

"In all your experience you have listened only to the voice of etherea and have partaken only of the fruits of Nirvanian industry and culture. You are bound to the Republic of Harmuts and it is bound to you. Yet, if you foolishly listen to the voice of Mi<sup>6</sup> in the

land of Pan as she whispers through her creations, you will also be bound to her. You sprang from corpor but were never bound to it. Take care that you do not throw away your high estate and lose that which has taken three thousand years for you to attain!"

"We will take care, O high goddess of Harmuts," Seth replied earnestly.

"See that you ALL do," Etisyai admonished. "As you are all bound one to another by affection and affiliation, if the least of you binds himself to corpor, you are all equally bound."

Now Ya'tiahaga spoke up.

"In three days' time you must depart for the little red star and the land of Pan," he said. "During these coming three days there will be excursion trips throughout all Fow'sang and its suburbs, through the museums and libraries. We are yours to command in all things.

"There are foods to delight the most exacting palate, music and dancing as it is found in no other place, and all sorts of jewels and ornaments with which you may adorn your ship, which you may have for the asking. Make yourselves at home!"

A HEAD in the heavens a red dot was growing larger. Already it was larger than any other visible body except the huge, fiery orb of the central sun of the system, whose rays were so strong that a thin coating of silver had had to be sprayed over half the ship's outer skin to block off the rays.

Larger and larger the red disc loomed, until it stood out in detail, with scuttling clouds, bright oceans, and reddish land areas.

A satellite could be seen to one side, smaller than the *Renawick*, and pock-marked with large craters.

Already preparations were underway for the landing. The ship had been set

<sup>6</sup> Mi—Mother Earth.—Ed.

in an orbit which would return it to the proximity of the red star in four hundred years after completing a long, ellipse-shaped circuit that would carry it far out of the planetary system of the sun.

The thousands of fire ships and pied-mazrs had emerged through equal thousands of openings which had at once closed again. These ships drifted in a long streamer behind the *Renawick*, and the millions under Seth were busy giving the rest of the ship a coating of silver.

At last the job was completed. The mirror surface produced a startling result. Instead of a huge sphere, there now appeared a small but intense center fire surrounded by large numbers of pinpoint motes of lesser fire that kept pace with the center fire.

From the sunward side the center fire seemed in the fore. As one moved around the ship the center fire moved back into the cluster of myriad pin points of light.

These were the reflections from the perfect spherical mirror, which was now the surface of the *Renawick*, of the fiery sun and the countless reflections of the stars. The many small ships following, and hiding from the rays of the hot sun behind the protection of the *Renawick*, gave the whole the appearance of a comet with its center ball and center cluster of bright points, with a long, luminous tail.

If there had been an astronomer on the red planet then, peering through his telescope he would have seen nothing but a comet, for the perfect reflecting surface of the *Renawick* would have thrown back rays into his telescope only from points that formed an equal angle to the vertical of the surface with the telescope and the original sources of light. Thus, the sun would be reflected as a small but measurably large

nucleus, surrounded by the points of brightness which are the reflections of the stars, and in between would have been nothing but the reflection of the blackness of space itself!

Even a spectroscopic analysis of the light from the apparent comet nearing the red star would not have led the astronomer to believe it anything more than it appeared to him. And huge though the *Renawick* was in size, its hollow construction and composition of plastigell made its mean density no more than that of a similar volume of atmosphere drifting in the void—too little to move a visible planet or moon a fraction of an inch from its regular orbit!

The plastigell itself is a substance which cannot exist on a planet, but must be made in the workshops of etherea far out from the suns, and protected from the disrupting radiations of suns by reflecting shields, for in its basic structure it is for the most part protonic and nebulous, being condensed to smaller size by introduction of electrons, and returned to its original structure by withdrawal of the electrons until the atoms of the continuous molecular structure are held stationary, but far apart, so that in density the plastigell is less than a gas at sea level on the earth, but rigid and pliable like a solid, throwing back the free-flying molecules of a gas of greater density, and even stopping solid objects of density as great as that of iron or stone and of great velocity of impact.

AS THE *Renawick* swept past the red planet thousands of the ships that formed her tail dived downward while other thousands kept on to follow the ship around the sun and protect her from harm by darting forward to deflect flying debris which might have marred the reflecting surface and let

in the fatal sun light which would have contracted and distorted the ship and soon destroyed it.

Soon the heavens of the red planet sparkled with streaks of light as the piedmazzs and fire ships braked to a halt in the upper stratosphere and came to rest on the plateau of Hored, two hundred miles above the continent named Pan by the mappers of Har-muts.

As the ships sank slowly to the surface of the plateau their passengers could see the huge expanse of their future home for the duration of their stay on the planet. Three thousand miles wide and five thousand miles long, it was anchored on the west by a high mountain range which dipped to the sea; by a large V shaped pair of mountain ranges to the south east, between which a large river with many tributaries made its way to the eastern ocean; and on the north west by another mountain range which divided Pan from a land to the west.

The main body of ships landed in the space of a few hours, while the plateau was in darkness and the continent far below was a study in blacks and whites. Other ships kept arriving for several days.

Seth was one of the first to land. As fast as the others came he assigned them to their work of mapping the present contours of Hored, which had changed somewhat since the last survey, and dividing all Hored into regions of operations, one for each van.

His own van occupied itself with constructing a magnificent throne from which Seth could conduct all affairs of the entire group and even entertain visiting travelers as they paused on their journeys.

Ha'jah and Haron found the van, Spotah, of which they were members, assigned to a region directly over the

eastern range.

Below was a long line of jagged white, which dipped down to blend into the blue green of the great plains on either side. At the southern end of the range the mountains sank into the ocean on the east.

"What are these mountains?" Ha'jah asked Seth, while the leader was seeing that everything would be all right for the van.

Seth looked on the map that had been given to him back at Fow'sang.

"They are named the range of Ha'-wai on the map," he said. "The highest peak is a little over five miles above sea level."

**I**N THREE weeks' time Seth's throne was completed and all vans assigned definite localities with fixed boundaries. Then Seth called a general assembly. When all the hosts had arrived Seth took his place on his throne, and the lords of the vans took their customary places to the right and to the left of him on the throne, forming a half-moon.

Facing the throne in a great semicircle, the millions chanted the words of the opening ceremony of general assembly which would unite their minds in common thought and make them a sensitive receiver of thought from far-off Fow'sang.

Gradually columns of fire ascended from the throne, colored with all the colors of the rainbow. Outward into space these went, and onward, faster than light until they reached Fow'sang. There a similar column rose and blended with the one from Hored. The two locked and became one, and over this column of ethereal fire the chant of the multitude traveled.

As the chant ended there was a flash of brilliant flame seen descending in the pillar. Suddenly Etisyai stepped out onto the throne and stood between the



arms of the half moon formed by Seth and his lords.

Facing Seth she said in a voice that carried to all assembled, "Greetings O Sethantes of Hodn, and to all the hosts who have bound themselves to you in love and loyalty, in Jehovah's name."

Seth bowed low before the beautiful chief factor of all Harmuts.

"Greetings to you, O Etisyai, chief factor for Harmuts, beloved Orian Chief of Harmuts, wise beyond conception. And welcome to our lowly garden which, through your gracious generosity shall become our home for a season."

"Greetings to you, O Etisyai," the hosts echoed with subdued respect.

Etisyai raised her right hand, palm extended forward, in a gesture of blessing and benediction.

"I acknowledge your greeting," she replied, "and according to the custom, and with the consent and blessings of Jehovah through Harmuts, beloved and all wise Orian counselor to whom we are all bound by loyalty and affection, I christen this land the Garden of Hodn of the plateau of Hored, in the heavens of the land of Pan, on the red star. Here shall you dwell in peace and understanding and here shall you gain that which you missed in your sudden exit from corporeal life on your home planets afar off.

"Partake of all the fruits of the garden, taste of every experience, and record the doings of the red star for your own understanding and knowledge. But let yourselves be governed by knowledge of Nirvanian law which says that insofar as you bind yourselves to this star will it bind itself to you.

"Partake not of the fruits of the tree of the fountain of life, whose roots are in corpor, lest you bind yourselves to death and lose your high estate. That work must yet be begun on the red star,

but leave it for those who are wise and experienced in such things, who will come in due time to bring the red star into the fulfillment of its destiny."

Then Etisyai stepped into the pillar of fire, and with a parting wave of her hand ascended swiftly, soon being lost to sight.

FOR several hours after her departure the business of planning the details of messenger service to all parts of the Garden of Hodn, the type of structures to be built in order that they might fit into the contours of Hored most gracefully, and all the other details of government which must be worked out carefully if the whole is to function without trouble, were dealt with.

Then plans for exploration of Pan and the classification of all its wonders were discussed. Ha'jah and Haron, to their intense satisfaction, found themselves assigned to exploration and scout work, which meant that they could descend to Pan at once and begin mapping out routes and areas for later groups to follow for intensive study.

"Oh, boy," Haron exclaimed softly to Ha'jah when the announcement of their duties was read. "Where'll we begin?"

"I've had my eyes on that valley between the Ha'wais and the southern mountains," Ha'jah whispered. "There are hundreds of square miles there in forest and meadow, and streams running through all of it only a few miles apart. There's bound to be all kinds of creatures and plants crowded together there. We can study the tree of life to our heart's content in all its branches and mutations of form."

"Only\* we must take care that we don't get too interested in it," Haron said.

"I realize that," Ha'jah remarked.

"It will be very difficult. We'll see hundreds of slight changes we could make that would increase the harmony and beauty of form of the plants and moving creatures. Undoubtedly we will find huge things which should be eradicated for the well-being of the rest.

"In our study of molecular melody, or the successive changes in chemical structure during the basic rp of each organism, we will see the ideal as well as the actual, and will be strongly tempted to do some changing. But Etisyai was right. We must leave that for more experienced heads. If we tried to guide the destinies of Creation here, we would not only bind ourselves to Pan, but what is worse in the long run, we would probably bungle the job so badly that we would be bound to it for a long time."

"Yes," Haron added, "We're at a bad disadvantage in having never lived in corpor. We must learn without experimenting."

"Only when we know the whole, and have consulted with those wiser than ourselves, can we know what is best in any life form," Ha'jah mused. "We might decide that a slight mutation which we could produce ourselves would make one race or species better able to live. We might be right, but unless we knew every detail of the consequences of the mutation we might upset the harmony and balance of the whole adversely. We will be tempted, all right. And more and more as we progress. But we must resist temptation completely!"

"That's for certain!" Haron agreed. "But it will be hard to see some race of dainty creatures being devoured by a natural enemy because of a lack of something in its makeup, and go blithely on our way without assisting it to change so that it can better survive. But we'll have to do it!"

"We sure will!" Ha'jah agreed.

They made their way to their fire ship and shot homeward to Spotah. It had already been transformed into a paradise of beautiful spires and dainty artistry. The rays of the sun were refracted and reflected by the ethereal structures into patterns of various colors that shimmered and made Spotah seem to waver and vibrate in a rhythm that spoke to the soul in poetic inspiration.

Diving downward they sent a deionization path ahead of them—a ladder of light upon which the fire ship glided down through the plateau toward the surface of Pan.

**S**TRAIGHTENING out a hundred feet above the surface they drifted slowly across meadows in which gazelle-like creatures grazed on the tall grasses, and through the tree tops of forests where myriad creatures swung from branch to branch or loped silently along the ground, and birds with bright plumage flashed gracefully through the thickets.

They brought the ship to a halt above a group of strange creatures in a clearing in a forest. Slowly the ship settled, remaining invisible to the ground creatures.

They had soft, furry bodies topped by round heads with small, pathetic looking mouths and large, moonlike eyes of innocent brown.

Their arms were much longer than their bodies, and their legs were long, but kept doubled up as the creatures moved slowly about in squatting position, overturning small stones and bits of bark from the trees that had fallen to the ground.

They were searching for beetles and grubs, and popping them into their mouths as fast as they found them.

Clinging spider-like to the backs of

many of the females were tiny replicas of the adults.

Ha'jah's eyes fastened on one particular female with a youngster on her back. The baby was busy picking through the fur on the mother's head, and making a great show of finding and eating tiny insects or dirt particles which it found. After each find it would chatter excitedly and lean over its mother's shoulder to poke its find at her nose.

The mother would sniff with exaggerated delight, and then the youngster, chattering with excited pipings would put the morsel into its mouth and chew vigorously as though it were chewing on something very large and very delicious.

Suddenly Ha'jah was jerked away from enjoyment of the pantomime of the baby creature. Haron had grabbed his shoulder and was pointing breathlessly toward a nearby tree.

Crouching well out on a limb, with its belly low and its tail twitching nervously, was a giant, yellow-striped creature with pointed fangs, the lithe muscles in its legs and body bunched for a quick spring upon the innocent animals on the ground below.

Without thinking, Ha'jah sprang from the ship at the same instant the carnivore left his branch. He suddenly became visible, and his fast-moving form distracted the carnivore momentarily. In that moment the alarmed creatures below disappeared in the underbrush.

The cat rolled over as he landed on the ground, and came to his feet in a crouch, a look of fear in his wild, yellow eyes. Then, with a defiant snarl he turned and bounded away.

Almost at once, round, wondering faces began to show through the leaves of the underbrush at the edge of the clearing.

"Hey, Ha'jah," Haron whispered softly from the invisible ship. "Watch what you're getting into there. We haven't even started to explore yet, and already you are interfering with the affairs of the creatures here!"

"I know, Haron," Ha'jah said excitedly. "But look at them peek out at me. Aren't they tame little things?"

He chuckled softly as he spied the face of the mother animal he had been watching before, and the tiny, doll face of the infant peering in fright and fascination from the crook of its mother's short neck.

Ha'jah stood motionless while the creatures grew accustomed to his appearance. Then with calming voice he advanced step by step toward the mother and her infant. They watched him intensely, apparently ready to vanish at the slightest trace of hostility on his part.

Finally he stood only a few feet from them. He held out his arm invitingly to the excitedly chattering baby. Without hesitation it leaped from its mother's shoulder to his arm and in an instant was perched on his shoulder, chattering proudly at its bravery.

The mother creature clucked worriedly and held its long arms out as it tried to coax its infant to return where it belonged.

THE arms were each nearly seven feet long, and extremely thin. They were obviously not strong enough to allow the creature to support its weight on them.

The hands showed the major use to which the arms were put. The long, flexible fingers were designed for delicate seizing of small objects.

From a sitting posture the creature could easily pick berries from the lower branches of trees and from even the upper branches of bushes.

The arms of the baby were wrapped around Ha'jah's neck awkwardly. No larger around than an inch, they were longer than Ha'jah's own arms.

Ha'jah stepped back into the clearing and sat down, knowing that Haron would warn him of any danger from his vantage point ten feet above the ground in the invisible ship.

Slowly the creatures returned to their search for food, looking his way occasionally with puzzlement or fear, their hunger and the richness of the food supply in this clearing fighting with their cautious desire to put a safe distance between themselves and this strange benefactor who had saved them from the huge cat.

The mother creature hunted for fat grubs and tried to coax her offspring away from Ha'jah, yet feared to come too close or to seize her baby forcibly. The baby, grown cocky in the knowledge that this being had not harmed it and that the grownups were afraid of it, soon perched atop Ha'jah's head and chattered jeeringly at the others.

The males had at first growled menacingly; but when they saw that Ha'jah did not seem to fear them and made no hostile movements himself, they soon forgot him and concentrated on the perpetual task of finding food.

Ha'jah chuckled with deep enjoyment as he sat motionless and studied the creatures. And before a half-hour had passed, Haron dropped softly to the ground a few feet away and joined him.

"YOU know," Ha'jah finally said to Haron, "These creatures use their hands so skillfully that in spite of their ungainly proportions, I think—"

"Think what?" Haron asked when he saw that Ha'jah didn't intend to complete his thought.

"I think they are a'su," Ha'jah finished.

"A'su!" Haron exclaimed. He looked thoughtfully at the fragile young animal perched contentedly on Ha'jah's shoulder, half asleep now. He noticed the way the creatures reached up into the lower branches of trees which bore fruit and unerringly picked only the ripe ones, leaving those with the slightest shade of green in their coloring.

"Perhaps you're right," he said thoughtfully. "But then, there are probably other species of animals on this planet who are also a'su."

"I'll grant you that," Ha'jah replied. "But a'su carries more implications than merely the genetic one. There might be a creature on this planet whose life span could never exceed a single summer, who is a'su. A'su means capable of mutation directly into a metamorphosite. But if the mutation were granted to a race whose life span could never be increased to a long enough period for at least a partial maturing of the adult metamorphosite entity, space would be filled with beings such as us, who need special training to compensate for our lack."

"All this is purely an academic discussion, of course," Haron said.

"Of course!" Ha'jah replied. "You didn't think I would be foolish enough to create a race of metamorphosites, did you?"

"Of course not," Haron said.

"Of course not!" Ha'jah exclaimed. "If I did, the whole of the Nirvanian Republics would be on my neck. But this little fellow that seems to have adopted me is so cute that I wish *he* were metamorphosite, so that I could keep him for a pet forever!"

"Ha!" Haron snorted. "You know what would result according to Nirvanian law, don't you? You would have to teach him until he knew all you know, and is as intelligent as you are, before you could ever go any higher

yourself. He wouldn't be your pet. He would be a permanent drag on your progress."

WHILE this discussion had been going on, the group of animals had exhausted the food possibilities of the clearing. Now the leader, a wizened old male, gave a series of moaning grunts, and moved off through the trees and shrubs with purposeful strides, his long arms grasping branches to steady his clumsy body and assist his weak legs.

The others followed. The mother of the little one asleep on Ha'jah's shoulder whimpered sadly, looking worriedly at her offspring and then pleadingly at Ha'jah.

With a laugh he woke the young one and set him on the ground. The mother at once fastened her hand on the wrist of her child and hurried to catch up with the rest before they got too far.

Ha'jah stood up.

"Well, that's that," he said with a short laugh. Then he bounded into the air toward the spot where the fire ship hovered, invisible. He vanished into it, with Haron following.

To the east, the snow-capped peaks of the Ha'wais stood with timeless patience. Far above, the sunlight filtering through Hored flashed with changing colors, but the plateau was too far up for the details of the rising spires and roadways to be seen.

On all sides the forest stretched endlessly, its thousands of trees forming a carpet of green below the ship. The fire ship drifted slowly while the two within it watched the passing scenery.

Here and there were small clearings in the trees. In some they saw more of the tame a'suan creatures. In others they saw giant mastodonic creatures.

Once they saw a mastodon struggling for his life, his back torn to ribbons by three huge, tawny cats, while other

cats darted in and out on the ground, lashing at his trunk and belly with their long claws.

They stopped and watched the struggle in fascination, until with a final, despairing blast of trumpeting sound from his bleeding trunk, the creature toppled over, to be covered at once by more of the cats who tore at his jugular and lapped greedily at the blood that shot out in ever lessening spurts.

Still they waited. A full hour passed. The huge cats were beginning to slink away, their stomachs bulging with their meal of fresh mammoth meat.

An insane, laughing noise could be heard, now to the right, now to the left. Here and there a dog-like creature would show momentarily through the breaks in the underbrush.

As the last cat left the torn carcass of the mastodon giant, the hyenas came out into the open and began their repast. Quarrelsome brutes, they fought among themselves in cowardly fashion, snarling at one another and snapping their yellow teeth while they gorged.

One hour passed. Then another. A rustling sound could be heard above the growls and laughs of the hyenas. The hyenas, hearing this sound, gulped their food in hasty desperation.

A moving carpet flowed out of the jungle growth from one side. The hyenas slunk off as this carpet crept toward the remains of the mammoth, now showing white in places where the skeleton had been stripped clean.

The carpet moved up to and then over the carcass, hiding it completely.

The carpet was ants. Millions of them. In less than eight hours after the mammoth was slain its whitened bones would lay exposed, with not a single morsel of meat or hide left on it anywhere.

But now something was happening. A strange glow seemed to emanate from

a spot just above the dead mammoth. This hovered stationary for several minutes, throbbing slightly. Then it drifted off through the trees.

HARON looked questioningly at Ha'jah, who nodded thoughtfully.

"Yes," Ha'jah said in answer to Haron's unspoken question. "This creature is a'su also. There are probably many more races that have attained to this stage. It would be an interesting problem, if it were ours to ponder. With more than one race of creatures potentially metamorphosite, which, or how many of them, should be given the final boost?"

"I'm beginning to see how complex the problem can be," Haron said. "Here is one race with adaptable hands. Metamorphosite, it could rise to great wisdom through the study and design of machines. Then there is another which, through longer living and prodigious memory could become as wise and as learned in philosophy, but never use tools, nor perhaps speech."

"Maybe they could rise in harmony," Ha'jah suggested. "The one lacking speech and the use of tools could assist the other with its longer experience and greater wisdom, so that both could form a working whole."

"That might be," Haron answered. "But then again, they might remain permanent enemies, each believing itself to be the superior creation."

"There's something in that, too," Ha'jah said. "Well, let's move on. We've watched death now. Our first observation of it. I can see now why it was necessary for us to spend a season in the cradle of the cosmos. Already there are more thoughts puzzling me than I can ever remember before!"

Once more the fire ship moved along, a hundred feet above the ground. Ha'jah pointed its prow eastward, toward

the snow capped Ha'waiis. The trees passed below more swiftly now. Where they had been all broad-leaved, crooked-branched, and a pale green before, there were now new varieties peppered in the landscape. Tall, straight, needle-leaved trees shot out to stand above the shorter lowland trees.

With the change in vegetation there was also a change in animal life. The cats and pachyderms became more scarce, while the grass-eating animals increased. Also bears were now in evidence, and the hyena had been supplanted by his more noble kinsman, the wild dog. What cats there were, were of a smaller, more agile variety.

The birds gave up their gay plumage and took on more practical attire, designed for fast flying and skilled maneuver.

As the ground sloped more steeply upward the broad-leaved trees were left behind almost completely, and where they grew they were taller and their leaves were small.

All the animals were wearing longer hair in their fur, and the grass-eaters were thinner and swifter.

"There is a curious problem," Ha'jah said to Haron after they had traveled several miles in silence. "Do the creatures change their trappings to suit their environment? Or do they seek out the environment best suited to the trappings that accidental mutation gave them? Maybe there's a bit of both factors influencing them. For example, if there were nothing but the very warm lowlands, and a creature started developing a heavy coat, it would die out from the heat. But it wanders all over, and those with the heavy coats stay where they are more comfortable, while those with thin coats stay where it is comfortably warm."

"I imagine it works that way," Haron replied. "There is the more or less

blind evolution, which spreads out over every possibility open to the creature. Those that can travel will stay where they are best fitted, and thrive. Those who are ill-adapted to any environment at all soon die out. Thus environment lops off the branches of the tree of life that are poorly fitted to live, while the branches left send out shoots in every direction continually. Those that aren't lopped off by environment grow to become strong branches on the tree of life as the tree grows taller."

"Your analogy is well chosen except for one detail," Ha'jah said with a chuckle.

"What's that?" Haron said in surprise.

"With a tree," Ha'jah explained, "if environment lops off an old and well-developed branch, the living shoots at its ends go with it. With life, one race may be the offshoot of an older race long lopped off, and still alive."

"Perhaps so," Haron answered. "But if we consider that a branch may be dead while the shoots at its end live, we can still use the analogy of a tree for life. Of course, I realize that in the tree there must be a living section in the dead branch which carries the sap from the roots to the living twigs. But the analogy of a tree and evolution is a fairly good one. Don't you think so?"

"Fair," Ha'jah said, "but like most analogies, there is a tendency in the person using them to consider them complete, and draw false conclusions to MAKE the analogy complete."

FOR three days and nights Ha'jah and Haron moved back and forth across the land of Pan which had been assigned as their section of survey. Then they returned to Hored to the Garden of Hodn, the colony of infants from far-off Hodn, the outskirt district

of the Nirvanian Republic of Harmuts.

In the three days they had been absent many changes had been made. The mansions had been formed out of the new plastic that comprised the major material of the plateau, a complex of gaseous ions and electric charges, made stable by the skill and knowledge of those whose special interest centered on such things.

The fire ship sped down a broad roadway from Spotah to the throne of Seth, arched over by a delicate lacework of blues and reds, backed by a smooth surface of pale green.

For a hundred miles before they reached the throne they could see it in all its splendor. A mile from it, they burst out of the roadway into a giant-domed throne room and saw that this room was the hub of a radiating series of roads which centered at the throne.

The splendor of the architecture was breath-taking, even to these two who were long used to breath-taking architecture!

From just back of the throne a pillar of brilliant white light rose out of an ebony base to support the peak of the dome. On each side of every entrance to the throne-room were smaller pillars of brilliant yellow light which arose from the center of a broad, polished ebony band which circled the room.

These yellow pillars held a similar band of deepest blue steadily in place far above, and from this blue band the giant dome swept upward in a symphony of latticework and color.

The dais of the throne was a slab of blue-white diamond which Seth had taken with him from Fow'sang. This rested on a large square of blackest, polished ebony, a hundred yards square, and was itself a hundred feet long, fifty feet wide, and a yard thick, and without a single flaw.

All the lights and designs of the entire throne-room, and the movement of the throngs of scurrying messengers and workmen, were absorbed into this flawless diamond and transformed by the ebony base into living light which shimmered and vibrated in a way that made the onlooker dizzy, as though peering into the depths of infinity from a precarious perch.

Seth's throne, set in the exact center of the diamond slab, was of pure gold in a sublimated, ionic state, so that it was no denser than a fine gas, yet strong as steel.

Ha'jah brought his ship to rest in a vacant cradle near the wall, and he and Haron climbed out and walked over to their place before the throne.

"Just LOOK at that," Haron whispered to Ha'jah.

Seth was sitting in his throne, conducting the thousands of details of the business of construction in the Garden of Hodn on Hored, and receiving the reports of the explorers as they came back from their assigned sections of Pan to report on their findings.

Dressed in a deep, velvety red, skin-tight covering, with a cloak of royal purple lined with a matching red carelessly draped from his shoulders, his intellectual face with its high forehead under a jeweled crown seemed the only unadorned detail of the whole scene. A few yards behind him the huge pillar of white fire that rose to the peak of the dome made a fitting background for his appearance.

Ha'jah and Haron watched, fascinated by all this lavish splendor, awaiting their turn to report. Finally a messenger whispered that they were next.

They advanced toward the diamond slab, leaping lightly to its surface, and then bowing low to their chief.

"What did you find?" Seth asked.

Ha'jah described all they had seen,

giving only the appearances of what they had observed, and not their own views on them.

Seth listened to every word, without comment. When the account was complete, he remained silent, thinking. He was tying their report in with the others he had received.

To one side map-makers were making notations on the topography of a huge map of Pan.

HARON broke into Seth's thoughts.

"Two of the races of creatures we saw are a'su," he said with a sly smile on his face.

Seth laughed merrily.

"There are over six hundred a'su races in Pan, according to reports received so far," he said. "In the western lowlands are races of serpents that are not only a'su, but also ie'su, being able to see clearly our invisible state, and to converse with us directly. Of these there are over a hundred races, with varying degrees of development.

"And there are huge, flying birds to the north in the central part of Pan which avoided our invisible ships and also followed them, showing they could see them and are therefore ie'su.

"This is a planet that is very rich in a'suan forms of life. I think the Nirvanian Chiefs are going to have a lot of trouble deciding which of them is to be transformed into metamorphosites, because the various races from which they themselves originated are present here!"

Seth looked piercingly at Haron and added, "I think I'm going to have a little trouble myself, because you and many of the others have thoughts in your minds that only your and my superiors should entertain."

"But Seth!" Haron exclaimed, "it is well known that this star is to be the birthplace eventually of a metamorpho-



site race. Is it wrong to speculate as to which of these a'su creatures will father it?"

"Just see that you don't become its mother," Seth answered dryly. Then he made the sign of dismissal and turned his attention to other things.

Ha'jah and Haron left the presence of the throne and returned to their ship. Neither said anything, and on the face of each was a thoughtful look.

"WHAT'S that you're making?"

Ha'jah asked Haron. It was a week after their visit to the surface of Pan. The week had been spent in enjoyment and relaxation, and in recounting what they had seen on their three-day exploration trip thousands of times to their friends and companions in Spotah.

"I'm making a chemical analyzer,"<sup>7</sup> Haron answered without looking up from his work.

"What for?" Ha'jah persisted.

Haron looked up with a grin.

"I'm just curious," he said, "about the construction of those a'su creatures in the clearing. I thought maybe the next time we go down we could take an

analyzer along and find out."

"Oh," Ha'jah said quietly. "Come to think of it, I'm curious too."

The two men looked at each other, and a quiet smile lurked in the corners of their mouths. Each knew what was in the thoughts of the other.

Ha'jah watched the analyzer take shape. From time to time he assisted Haron in its construction.

Finally it was completed. Designed to fit on the head, when worn, its two receptors looked like the horns of a bull, and the analyzer itself, from which the two horn-like receptors rose, looked like nothing more than the bony base at the head of a horned bull.

Haron put it on to try it out. He focused the receptors on the plastic wall nearby. At once the detailed composition of the plastic flashed into his mind. It worked perfectly!

Then Ha'jah tried it out.

After that they hid it in a secret compartment in their fire ship.

HA'JAH and Haron dropped their fire ship through the trees and brought it to rest in front of a small, translucent building, half-hidden in the

<sup>7</sup> The chemical analyzer referred to here is the ultimate extreme in ray analysis. Modern science is finding out more and more of the chemical structure of things, both on earth and on suns and other planets, by spectroscopic analysis.

Modern science is limited in the scope of this type of analysis in two ways. First, the materials that make the spectroscope will not analyze the complete spectrum, but merely broad bands of it. The ultraviolet and infrared bands must be photographed, and the x-ray, cosmic ray, and radio frequency and audio frequency bands of the complete spectrum of matter are beyond the ability of present instruments to record in detail.

Secondly, modern science believes that an atom emits only a single frequency at any time, and that the various wavelengths of light emitted from a hot body are emitted by different atoms and molecules, when ACTUALLY the emission of any atom or molecule is a COMPOSITE wave, made up of many different frequencies, which are broken up by the prism into single frequencies.

Just as a high C from a violin is different than the same note from a piano or from the human

voice, because it is a COMPOSITE made up of high C and several other tones, so also the wave emitted from an atom is a composite wave, which, when completely understood, will tell every detail of the structure of that atom and its state while emitting the composite wave.

These composite waves are called by the interstellar metamorphosites race the VOICE of the atom or molecule; and, since they refer to all matter as corpor, they are aware of what goes on by "listening to the voice of corpor," being able to locate the source by the direction and intensity of the "voice."

The analyzer is a mathematical sorter which automatically sorts and classifies the "voice of corpor" and gives out detailed chemical composition in all its complexity. Such a machine can "look" at a living cell in an animal and give its chemical structure, even when some of the molecules are made of many thousands of atoms in a unique and unknown formation.

A very restricted edition of this analyzer could be made right now by man in his present state of knowledge! . . . . AUTHOR.

thick forest growth.

Six months had passed since their first visit to the surface of Pan. In that time they had secretly built this small field laboratory and done much work.

The results of their work were of incredible complexity. First, they had spirited away one of the a'suans and brought him here. They had put him to sleep and were keeping him in a state bordering on suspended animation.

The building of the laboratory and the securing of the specimen had taken the first month. In the five months since then they had learned all there was to know about his construction.

On a large chart they had written the detailed composition of the sperm and egg cells of the creature; and on another, the organic group<sup>8</sup> which the egg cell embodied.

From this factual picture as a basis, they now had to figure out the details of a chemical action which would result in a mutation on the original sperm or ova, which would result in a true metamorphosite individual!

<sup>8</sup> The concept of the organic group can be gained from the following line of reasoning:

(1) The adult organism, (man, mouse, or louse), contains millions of living cells, but only a relatively few TYPES of cells. Thus, the blood contains red cells and white cells—two TYPES, but millions of individuals.

(2) The adult organism started in as a single cell—the egg cell. All the different cells of the organism had, as a common ancestor, the original egg cell that resulted in the organism.

(3) The adult organism has a definite structure that is geometrical and standard, not unpredictable and widely varied.

Therefore, since the adult organism resulted from cell division starting with the single egg, the succession of cell divisions must have taken place according to a predetermined pattern fixed by the construction of the nucleus of the egg cell, and the different types of cells must have, at some stage along the line of division, been produced by the division of one type of cell into two cells, one of which was different in type than the parent cell that had just divided.

The mutation in the chemical structure had to be self-perpetuating, so naturally the resultant molecule would have to be an rp type.

The complexity of the problem was enormous, involving over twenty million factors. And it was by no means certain that Ha'jah and Haron were smart enough to figure out the right answer.

As soon as the ship came to rest they jumped out and entered their laboratory. They carried a box of berries and insects which they had gathered hastily to feed their specimen.

Reviving him just enough so that he could eat, they unrolled their charts and took up where they had left off a few hours before.

The a'su chewed his food slowly, watching the two ethereans as they pored over the charts. From time to time he scratched at his side where the skin had been cut for study of his internal construction, and then sewed back together. The incision was healing rapidly from the last opening, and itched as all healing wounds do.

"There's no getting around it," Har-

Let's denote the parent cell by the symbol A, and the resulting two cells when it divides will be called X and Y. Then

$$A \rightarrow X, Y$$

is the symbolical expression for cell division in organic group theory. This is merely an expression for the parentage of any cell in the organism. The set of all such expressions for any organism is the ORGANIC GROUP of that organism, and the mathematics of ORGANIC GROUPS has many of its fundamental concepts in the already existing mathematics of FINITE GROUPS and GROUP THEORY.

Complete evaluation of the organic group of any organism will be accomplished only when man develops the techniques of cell surgery and single cell study, taking a type-cell from an organism and placing it in a nutrient bath, and studying the resulting cell divisions. The organic group of an egg is the gene pattern of that egg's nucleus.

This is a rough outline of one branch of science of the future which has only vague beginnings and crude techniques in existing science.

on said. "The body temperature of the a'su is too high for the mutant embryo to develop. A hundred and seven would prevent the development of the brain structure of the i'hin<sup>9</sup> embryo."

"I guess you're right," Ha'jah sighed resignedly. "We'll have to construct female forms with a low enough temperature to permit the embryo to develop properly. When the first i'hins grow up they will be able to reproduce, because we will incorporate changes in the body structure which will keep the body at a lower temperature."

"You are agreed that the a'su sperm can be used unchanged?" Haron asked.

"Yes," Ha'jah replied. "We can change the ova design enough to compensate entirely. What we've got to do is build female forms and practically live in them, directing them at all times so that they get the right food, and mate with the a'su males, and care for the i'hin babies until they can take care of themselves."

"**W**ON'T Seth be furious if and when he finds out what we are doing!" Haron said with a chuckle.

Ha'jah smiled sadly.

"I hate to go against him," he said.

"But we know what we are getting into. We're willing to be bound to our crea-

tion. After all, what is living if it is not for being bound to some useful project. The old saying that one should not go in swimming until one learns how to swim is all right. But I'd rather learn how to swim as I go."

"Me, too," Haron said emphatically. "This is real fun. And we will learn more than we would by being good boys. Or will we have to be women?"

"I'm afraid we will for a while, anyway," Ha'jah answered. "There doesn't seem to be any other way of making a successful mutation of the a'su that will be a true metamorphosite."

"We can take a rib or something from our specimen," Haron said. "From the cells in the rib we can develop the complete female form and insert the altered ova. That won't take too much doing."

"We'll have to," Ha'jah said. "We've got to use body cells from the original race to make the female form. Those of a rib with some muscle and other cells in it will do nicely. We have to have the bone structure to produce red blood cells, and a rib seems to be the only part of this creature that it can spare without crippling it."

"Can't we find some cell or group of cells that can develop into the complete female form without taking the rib?" Haron asked.

"I don't think so," Ha'jah replied. "We want to develop an adult form, and the original nucleus does not carry to the body cells complete. There aren't any of them that could divide under controlled growth to produce the whole body. Some simple creatures carry their egg nucleus unchanged into all the body cells, but not this one. We have to have representative cell types of all kinds, and they are found in a rib. The creature can spare a rib. So—"

"Okay," Haron gave in to logic.

<sup>9</sup> The i'hin was the first true race on earth which was metamorphosite, having within it a second body which was fully complete when the living creature was first born, and which had the property of indestructibility coupled with ability to reason.

In the human being today, a rise in body temperature produces irrationality. If the body of a woman bearing child rises in temperature and stays too high for a long period, the baby will either die before birth or else be born damaged in brain structure beyond repair.

The naturally evolved race of Earth creatures which provided the basic body structures for the first race of man had a natural body temperature too high for production of the first man. Synthetic bodies similar to theirs, but with a lower body temperature, had to be made to carry the first human babies before birth.

"We might as well get a couple of female forms started," Ha'jah said matter-of-factly. "They can be growing while we finish the problem. Then they'll be ready to use."

The incision was once more reopened in the side of the a'su, AND A RIB WAS TAKEN FROM HIS SIDE.

This was taken and placed in a tank where special, nutrient fluids washed it continually, providing the stimulating chemicals and the food substances which would shape it to almost any desired form.

AS THE hours passed by the flesh and bone of the rib began to change slightly. It began to grow. Then Haron cut it into several pieces, putting all but two into a separate bath where they would stay alive, but not grow. These were to be the "bank" from which additional forms might be started at will.

The two that were left in the nutrient tank continued to expand more rapidly. Ha'jah and Haron watched the progress through the analyzer.

After several hours they set up a machine with many small arms over the tank. This was the microsurgery instrument.

Then began the long hours of transplantation, single-cell stimulation, and growth control which took all the skill of three thousand years of experience as embodied in the minds of these two would-be creators.

A whole month went by without either man leaving the laboratory longer than absolutely necessary, to get food for the a'su, and to get materials from Spotah that were required.

The female forms were now complete in almost every respect. Intravenous feeding tubes were attached to them and then they were taken out of the baths. Heart action and breathing were begun.

Finally food was introduced into the digestive tracts. Still the minds of the female figures were kept unconscious. But the day came when the work was complete. Except for mental functioning, the females could easily survive in the surroundings in which the a'suans lived.

Meanwhile the mutated ova were put in place by surgery. Everything was ready for the final stage.

"WHAT do you think?" Haron asked Ha'jah. "Do you think the mind will function well enough for them to get along all right?"

"I hope so," Ha'jah said. "We've planted every 'memory' necessary. And what a job! We'll be able to control them constantly if necessary, but I think that after a short time we can leave them to their own devices. With the belief planted in this a'su that they are his mates, he will consider them such from the minute he opens his eyes once more."

"Well?" Haron asked. On his face was a look of intense eagerness.

Wordlessly Ha'jah nodded. Disconnection of feeding tubes started. The flesh that had grown around them was cut and wounded and drawn together, with special healing substances applied to make them heal quickly.

Hours of massage and manipulation of muscles began with forced, subconscious associations implanted, so that the waking females would know how to walk, run, eat, and do all things that would be required of them during their lives.

Then the big moment arrived! Would those eyes, when they opened, show intelligence and sanity behind them? Would the patient labor of months be rewarded with success? Or would all this have to be done over again?

One of the females was awakened. Her eyes, large and blue, looked unseeingly forward. The lips opened and a quiet, whimpering sound came forth.

Then, without warning, she leaped from the bench on which she lay and ran blindly, going through the door by accident and disappearing in the undergrowth outside.

Quickly Ha'jah and Haron dashed after her. They could see her fleeing, white form dashing through the underbrush, now running headlong in blind flight, now stumbling against some obstruction and falling, to pick herself up and go on.

At last they caught up with her and bore her to the ground. Her body was torn and bruised. A broken twig had gouged into one of her eyes, tearing it beyond repair.

Quickly they put her to sleep and carried her back to the laboratory.

"What was wrong?" Haron asked, wonder and a growing sense of impending defeat in his voice.

"Isn't it obvious?" Ha'jah said bitterly. "We planted all the reflexes and knowledge in her mind that were necessary for her to be normal. But we couldn't plant coordination in her mind. The part of her that could see couldn't contact the part of her that controlled her muscular action. She might as well have been blind for all the good her eyes did her."

"Oh ho-oh!" Haron exclaimed with dawning comprehension. "I see it now. If we had created her helpless to run, her lack of mental coordination would have gone away slowly, so that when she grew up she would be as the a'su—unintelligent, but able to get along all right. What she lacks, and what we can't give her, because it is beyond artificial synthesis, is the central seat of judgment, the—"

He looked at Ha'jah questioningly.

Ha'jah nodded his head grimly. "We can give that to the other, but the first one is too damaged now to be of any use—unless you want to repair it and follow my example."

"What are you going to do?" Haron asked.

"This," Ha'jah said.

**SLOWLY** his form became transparent. Finally it was gone. But the eyes of Haron could still follow it as it moved invisibly to the unconscious form of the second female figure, and dawning comprehension showed in his eyes as he saw Ha'jah merge with the figure until he became a part of it.

The bosom of the reclining figure heaved spasmodically and then normal breathing resumed. The eyelids parted and then opened wide. In the large, blue eyes was a light of wisdom and strength, and about the lips of the beautiful face of the first woman hovered a smile of triumph.

Slowly she sat up, then placed her feet on the floor of the laboratory.

Speechless, Haron watched her move about, clumsily at first, then with more and more sureness.

Finally her lips opened. Frowning concentration appeared on her face. Then, with great effort, she spoke.

"H-h-hello," she stuttered. A look of pleased surprise followed this utterance.

Haron began to turn red. His face became flushed, and he had trouble with his breathing. Then he began to laugh. Louder and louder he laughed until he couldn't stand. He dropped to the floor and continued laughing, while the first woman looked on, a puzzled expression on her face.

"W-w-well," she said. "Wh-wh-what's so f-f-f-funny?" Then she cleared her voice and said, "What's so funny, Haron?"

Haron finally became too exhausted to laugh any more. He lay quiet for a while, then answered her.

"It was just the way everything was," he said soberly. "You, Ha'jah, become the spirit of the first woman on the red star, Earth, and your first words, which should be handed down to the future race of man on this planet—what are they? Just 'hello'! You should have said something extremely wise and appropriate."

"Such as what?" the first woman asked.

"Something like this," Haron said. Then he cleared his voice loudly.

"As the morning follows the evening," he said, aping the tones of the woman's voice, "so shall man rise to become a god race after the night of tribulations which must come to him as he struggles upward and falls back, to begin again and again. As the evening signals the end of the day and is the foreshadowing of the night, so also you, forsaking immortality to take on mortal flesh, are the first shadow of the night that we of the Garden of Hodn will have to go through before we can redeem our high estate.

"Therefore, creature that is both god and woman, formed in the image of the beast of the field, yet also in the image of the god that created you, I name you Eve, the mother of Man. You are the end of a day for Hodn and its hosts, and the promise of a day to come for the red star, Earth. As you have of your own free will partaken of the tree of life, and turned your back on the Garden (for you know that your flesh body couldn't stand the high altitudes, and if you deserted it before its time is fulfilled our work would have availed us nothing), so shall you be bound to your work and be servant and teacher to the children of man until your children, and children's children to the sixth genera-

tion shall rise with you, freed of mortal bondage.

"How does that sound—Eve?" Haron asked softly.

EVE smiled. "It sounds good to me," she answered. "You know, there is something about Nirvanian Law that I am just beginning to see with my woman's eyes. The Law says that only in service to others can one rise and advance in wisdom and strength. Yet it warns against doing anything to bind one to those lower in grade. That's a seeming contradiction. I am beginning to suspect that Etisyai sent us to the Earth for the express purpose of having us do what you and I have done!"

"You mean she maneuvered us into this?" Haron exclaimed in disbelief.

"I think so," Eve said. "She couldn't command us to do it, or she would herself be bound to this creation. She gave us fair warning and had us free her of all responsibility for our acts here on the red star. Do you suppose the highest of archangels is so lacking in wisdom and so deaf to the voice of the Father, that she would have directed us here without knowing what we would do?"

"Hmm," Haron said, glancing at the mutilated form of the first and unsuccessful woman.

Ha'jah, now Eve, smiled at Haron.

"I think you will follow me," he said. "Now, if you will be so kind as to wake my mate—"

Haron turned to the sleeping a'su and restored him to consciousness.

The a'su blinked his eyes at Eve, then grunted and moved toward the doorway. Eve followed, the eternal smile of woman on her face.

Haron stood in the doorway and watched as the two figures moved down the path into the forest. He saw Eve turn and look back. He waved slowly,

and there was a flash of white as she waved back at him. Then she was gone.

\* \* \*

AND THE LORD brought the angels of heaven to man; by his side took they on forms like unto man, having all the

organs and attributes of mortals, for it was the time of the earth for such things to be.

And it came to pass that a new race was born on the earth . . . begotten of both heaven and earth.

# Vignettes

## OF FAMOUS SCIENTISTS

By ALEXANDER BLADE

### Rudolf Virchow

THE Scottish physicist, James David Forbes, was born at Edinburgh on April 20, 1809. He was educated at the University of Edinburgh for the profession of law, but his inclinations led to the study of physics, and in 1833 he became professor of natural philosophy there. He held this position until 1859 when he became principal of the United college at St. Andrews. As a scientific investigator he is best known for his researches on heat and on glaciers.

Between 1836 and 1844 he published four series on "Researches on Heat," the result of his important discovery of the polarization of heat rays. This he described by tourmaline, by transmission through a bundle of thin mica plates inclined to the transmitted ray, and by reflection from the surfaces of a pile of mica plates placed at the polarizing angle, and also its circular polarization by two internal reflections in rhombs of rock-salt.

In 1846 he began experiments on the temperature of the earth at different depths and in different soils near Edinburgh; he determined the thermal conductivity of trap-tufa, sandstone and pure loose sand. Later he investigated the laws of the conduction of heat in hars, and his last piece of work was to show that the thermal conductivity of iron diminishes with increase of temperature. The Royal Society of London awarded him the Rumford Medal in 1838 and the Gold Medal in 1843 for his work on heat.

During the years between 1836 and 1843 he devoted his summers to the investigation of glacial phenomena, at first in Switzerland, in association with Agassiz; and in 1844 published an account of them, under the title of "Travels Through the Alps," which is regarded as a classical production on the subject. In 1851 he made a similar study of the glaciers of the Scandinavian peninsula. Two years later appeared his final work, "A Tour of Mont Blanc and Monte Rosa," on the same sub-

ject. Forbes died on December 31, 1868.

Those undulations in the ether which affect our sense of vision or produce the sensations of heat, are like those which travel through a cord when one end of it is fixed, and the other vigorously shaken; waves which rise and fall at right angles to the direction in which they travel. There is no travel in the string, or in the ether, but the impulse in the latter does move from its source to the eye, as it does from the free end of the string to its fixed end. Each such impulse is called a ray and, according to the length from crest to crest of its individual undulations, it may be either a ray of light, or of heat, or of electrical energy. Space is filled with countless billions of them, coming from all directions, and moving with undulations whose crests and troughs point to all imaginable angles that might be conceived on the plane of a circle, perpendicular to their course.

ASSUME now that across the path of a beam of such rays, a thin slice of the apparently transparent mineral tourmaline is interposed at right angles to the direction of its travel. When it issues from it, it is found that all the rays composing the new beam are now undulating in waves whose crests and troughs are parallel to each other. Two inferences are permissible. Either the crystal, owing to the peculiar manner in which its molecules are arranged, has cut off and refuses to pass all except those vibrating in a certain plane; or else, in addition to passing them, it has compelled all the others to change the angle of their undulations. It is as if the crystal had a long and extremely narrow slit through it, which either cut off all rays except those vibrating in planes parallel to its length, or else, if passing them, compelled the others to accommodate themselves to the direction of that length. To determine which is the case, let there be interposed across

(Concluded on page 178)

# MURDER

by **LEE  
FRANCIS**

I let go with my fist and Lamont  
went down and out. I was too mad  
to care whether I had killed him



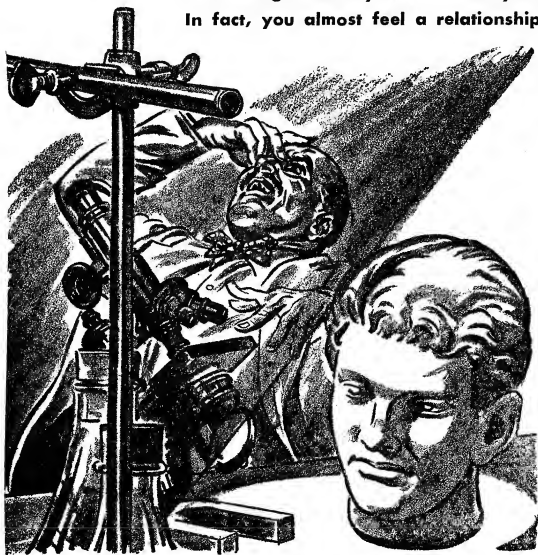


# SOLVES A PROBLEM

**I** KNOCKED at the door of Professor Lamont's laboratory, opened the door and walked in. No one ever waited for Lamont to answer. The knock was a gesture of good taste, for Lamont never heard it.

Jeffery Lamont was as ugly featured as his temper. His face was dark, brooding and marked with scars. I never visited him for the purpose of enjoying his company. Today I had prepared a paper on brain study and wanted his

**When you work with robots, you get the feeling that they're similar to you. In fact, you almost feel a relationship**



permission to use it as a basis for my yearly thesis. He was working over something on the laboratory table. In the semi-darkness of the basement room I walked close and looked over his shoulder.

*Under his knife on the table, was the severed head of a man. A head that looked, in every detail, exactly like mine.*

I cried out in shocked amazement and Lamont whirled on me. His scowl was threatening.

"Good Lord, Falter," he snapped. "Why did you bust in like this? I don't blame you for being shocked."

I had lost control of myself for an instant. The head was a perfect copy of my own, and that fact alone caused me to wonder if it were truly human. The light glowed on the soft tinted flesh and because it seemed to have color and life, I realized that it could not truly be from a corpse.

"Don't be alarmed," Lamont said. "I haven't gone in for medical research. This is the last section for my new robot."

A more perfect robot's head I had never seen. Lamont specialized in things like that. He had built several robots. Each of them looked a little more human. It was rumored, also, that each came a little closer to reacting as a human being would react.

To put the thing in a nutshell, a few of us suspected that Lamont was attempting to reproduce, from lifeless materials, the perfect man.

"But why a copy of me?" I asked. Somehow there seemed to be something sinister in the fact that the head was like mine. "Why was I honored?"

Lamont backed away from the table a short distance. It was plain that he didn't relish my presence. At last he sighed.

"Now that you've broken in, I guess

you'll have to know the story. If I don't tell you, you'll spread a lot of foolish stories around and cause me trouble. If I do, perhaps you'll have the good grace to keep your mouth shut."

That was Lamont. Direct and to the point. Always making enemies in whatever field he chose to exploit.

"Thanks," I said shortly. "You don't have to . . ."

"Shut up," he said. He walked to his desk and sat down. "Sit opposite me."

I wanted to punch him in the face. Perhaps because he was a professor and I was a student, I didn't. I sat down.

"Tonight I will make the final adjustment," he said. "That head, a facsimile of *your* head, will be carefully installed. Newlawn College will become the home of a new student, Don Wheeling."

He chuckled.

"I thought a long time before I hit on that name," he continued. "As Wheeling is really a complicated mass of cogs and wheels under the smooth rubber-wax exterior, I thought Wheeling would do the trick."

I may add that Lamont had, from the first, disregarded those metal, clanking monsters that men had accepted as robots. His creations were made cleverly and his touch was the touch of an artist. When Lamont's robots started to *live*, they were faithful reproductions of real men and women.

"I can understand why you would build another robot," I admitted. "The last one was quite successful. *But why copy my features?*"

I was still very angry with him. Yet I knew Lamont well, and the treatment he was giving me was no different than the manner he treated others.

A ghost of a smile touched his lips.

"I want something—someone to ap-

peal to my wife, Susan. It will be a most interesting experiment."

I stood up slowly. My fists were clenched. I felt anger pounding in my head.

"SEE here, Lamont," I said slowly. "I know you've been talking about me. I'd like to remind you that my only visits here have been made in your presence, and that your wife asked me upon two occasions to take her to football games that you were unable to attend. Each time we were with several other couples. Each time I brought her home to you directly from the game. I'm sick of you and your obnoxious, insulting ways. I know only one way to prove it."

He came out of his chair. He rounded the desk and stood there facing me.

"You deny that there is anything between you and my wife?"

"I do," I said, and let go with my right fist. Lamont went down like a man who had been shot. I was still too fighting mad to care whether I had killed him or not. I slammed the door behind me when I went out.

The air was fresh and I felt a lot better. I'd been holding back for a long time. Susan Lamont *was* a lovely person. Lamont was ten years her senior. Susan had never confessed to me that she was unhappy with Lamont. She wasn't the type to carry her troubles to others. However, I noticed when I spoke to her of his work, that she usually changed the subject hurriedly. Susan had learned to know me well through my work with Lamont, and once she had asked if I would take her to the game between College and a down-state school. We went, with Lamont's permission, and I was careful not to let us become separated from the gang who went along.

I won't pretend that I didn't care

for Susan Lamont. We had much in common and she realized how I felt. I am, I hope, above stealing another man's wife, regardless of the fact that he may be a complete heel. Susan, I know, would remain loyal to him to the end. That was Susan.

Now Lamont had created a robot, Don Wheeling. He had created a likeness of me and planned to experiment, in some ungodly manner, on Susan's emotions. The thought angered and chilled me at once.

IT WOULD be hard to explain Lamont's outlook on life. I had been in that basement laboratory of his many times. I knew about the intricate metal *brains* he placed in his robots. Lamont, clever as he was, could not invent any machine that would use perpetual motion. He had the next best thing, however. He used a long, silver *key* with a tiny tube of radium imbedded in the end of it. Directly behind the ear of his robots was a small *keyhole*. The opening was on the right side of the head and led directly to the tiny chamber that controlled the robot. Once a week it was necessary to insert that key until the mechanical brain had absorbed enough energy to go on running. With the key removed, the opening was covered and the robot became to all intents a living, moving, thinking human.

With Don Wheeling, the newest robot, troubling me, I spent an unhappy week. I expect that Lamont would complain about me, but on Friday I received this note from him:

"Dear Falter—Rather a foolish thing to do, cracking me up like that. You might have killed me and then you would have been in trouble. As it is, I'll forget your attack, if you in turn will let your memory fail concerning what

you saw and heard during your last visit to the lab. If you decide to talk, I'll tell the truth about you and Susan that will end your career here for all time. It should be evident that no one will believe any of your own lies concerning my dear wife. I'm afraid it would put you on the spot.

"You may continue coming here for the weekly lecture and class. We can, I think, adjust ourselves to each other's company."

Jeffery Lamont.

It didn't occur to me that I might take this note to President Farley of the college and have myself protected in that manner. When I thought of it later, I had, in a fit of temper, destroyed the message.

**I**F LAMONT had been satisfied to let things drop there, everything might have turned out all right. He was, however, determined to make something of the imaginary affair between Susan and myself. On Saturday afternoon, he insisted on my remaining after class. We went together to his home. I'll admit that I was curious about the robot and didn't dare, for Susan's sake, to fight any more than necessary with her husband.

In his basement laboratory, I met Bob Wheeling, my metal and rubber-wax twin. We had seated ourselves when Lamont pressed a button on his desk and the closet door opened slowly.

"Don," he called. "I have a visitor. Come out and meet him."

I think the biggest shock to me was, that though I had prepared to see something that looked like myself, the perfection of the job startled me.

Don Wheeling was, in short, another James Falter. I would have sworn, had I not known differently, that I was staring at myself in a full

length mirror. I waited as the robot walked across the room to my chair.

"I have heard of you," the rubber-wax lips said quietly. "The Professor admires you. He modeled me after you because of that fact."

I stood up. I couldn't help it, for he held out his hand and I arose to shake it. It was warm and firm, like human flesh. Could this be . . . ?

I thought I saw it all. I turned to Lamont.

"See here," I said. "This is a good joke on me. A very good one. Now confess this isn't a robot. The disguise is good, but . . ."

Wheeling let both arms drop at his sides. He looked like a run down clock. All color and emotion seemed to drain from him. Lamont sprang to his feet.

"You damned fool," he snapped. "You've given him a problem to worry about. He's not ready for problems yet. They alarm and disturb him."

He produced a key from his pocket—one of those radium tipped keys I had seen him use before. He jabbed it quickly into the opening behind Wheeling's right ear. The smile—the look of intelligence came back on Wheeling's face.

"You're a friend of Susan's," Wheeling said.

I nodded.

"Susan is lots of fun," Wheeling said. "I am going . . ."

"*You may go back now,*" Lamont said gruffly. "I will call you again. Mr. Falter isn't interested in Susan."

Wheeling didn't look surprised. He didn't express any emotion. He turned mechanically and went back into the small, dark closet.

Lamont said:

"Oddly enough, Wheeling likes Susan."

"You didn't plan it that way, of course?"

He frowned.

"I'd suggest that you stop bothering me with those remarks," he said. "What Susan and I do is our business. Wheeling is our robot. You have no connection in any way with us. You should have no interest in Susan, if you've been telling me the truth."

I said nothing. I got up and went out. He had me on the spot. More than ever now, I knew I *was* interested in Susan Lamont. Since that first night that Lamont told me of the robot, Wheeling, I knew that I had to protect Susan in any way I could. Though I could never hope to have her for my own, I must confess now that I had fallen very deeply in love with Jeffery Lamont's young wife.

SUSAN LAMONT was one of those rare people who possess both beauty and brains. Her body was perfect and as clean and decent as her thoughts. She had small, delicate features and large, round blue eyes that sparkled like jewels in a perfectly molded setting. She was young and fun loving.

She came running across the campus and caught up with me as I went to lunch. Today her eyes were clouded with fright and anger. Her cheeks were pink with the cold air and she was panting.

"Jim—Wait a minute."

I stopped and waited until she caught up with me.

"Jim," she said, "you mustn't come any more. Jeffery saw you last night, I'm—I'm ashamed of both of us."

There were tears in her eyes. I wanted to take her in my arms then and there. I wanted to tell her that I had never come to her. That if anyone had come, it was not a man at all, but a robot which her own husband was using to drive her mad.

I had to think. I had to have time

to work out a plan.

"I'll stay away," I said rather abruptly. "I'm sorry if I caused you any trouble."

She stared at me.

"Jim—you said you—cared a great deal. That you'd always care, even if we could never . . ."

I hadn't said that. I hadn't told her anything, but for once, Don Wheeling had spoken my thoughts perfectly.

"Susan, I do. I never thought I'd say I loved you, but I do and there's no use hiding it. You and I know what we must do. I won't trouble you or Lamont again."

I left her standing there on the sidewalk staring after me. I didn't dare look back.

"I DON'T want a lecture, Jim," Ward Homun said. He was sitting on the bed in our room, reading his nightly quota of *Homer*. "You can't get away with it, though. You'd better get wise to yourself."

Startled, I looked up from the desk. He was staring at me gravely.

"I don't get it," I said, smiling.

His face turned brick-red.

"Lay off Susan Lamont," he said. "Her husband's dynamite, and you've got the whole campus talking."

I was out from behind the desk and standing over him.

"You keep your trap shut, Homun," I said, "or I'll . . ."

He shrugged.

"So you can lick hell out of me if you want to," he said. "I'm your friend and I'm doing what any pal would."

I was beginning to realize what a fool I had been. I relaxed a little.

"I guess you are," I admitted. "Sorry, Ward, but it's getting under my skin."

He nodded.

"I'd think it might," he admitted. "Susan's a pretty dish. It's none of my business but some of the boys saw you and Susan in a clinch. They were passing the house and saw both of you plainly through the window. That stuff gets around, Jim."

A slow, murderous anger started to grow inside me. So that's the way it was. Lamont had inflicted Don Wheeling on Susan. That was why she had asked me to stay away. She thought Wheeling and I were the same person. She had kissed my double because she loved *me* and had begged me to stay away because she was—who she was—clean, upright Susan. I was proud of her and sickened by Jeffery Lamont.

Ward Homun was still staring at me.

"Look, Ward," I said. "I've been a sap. I'm going to do something about it."

He grinned.

"Good," he said. "You're all right, Jim. I know how hard it is. Susan's the top name on my admiration list and I don't blame you for falling. Better pull out of her life while you can."

He went back to *Homer* and I returned to the desk.

I had been a fool, but not the kind Ward Homun thought. After a while I stood up.

"I'm going out for some air," I said.

He looked at me questioningly.

"*On the campus*," I added.

"That's better," he admitted. "Don't slip up again, Jim. Goodnight."

I said, "Goodnight," and went out, my mind made up.

I crossed the campus and headed for Lamont's house. This time I was going to have it out with him. I entered the garden, found the back door unlocked and went in. I heard voices in the basement laboratory. I went down the steps silently and hesitated

outside the laboratory door. I could hear Lamont and Don Wheeling talking inside.

"You are a good pupil," Lamont was saying.

I wasn't ashamed of myself for listening. Lamont was the person to be ashamed. I had done nothing wrong, unless loving Susan was wrong. I couldn't do anything about that.

Don Wheeling was laughing easily. It might have been my own voice.

"In fact," Lamont added, "you are perfect. Almost perfect, anyhow. I've educated you to understand and react to nearly all emotions."

"My education has been pleasant," Don Wheeling admitted. "The girl is attractive. I enjoy following her about."

The girl? Susan— Didn't the robot know who Susan was?

"Tell me," Lamont said, "do you ever have moments when you are discouraged? Do you ever suffer with the idea that you aren't happy. That you would prefer certain changes in life?"

"Never," Wheeling's voice answered.

"Odd." I could tell Lamont was discouraged. "I haven't explained the emotion of unhappiness to you. Here is an example. Men often refuse to fight longer when problems confront them that seem hopeless. They even do away with their own life, commit suicide, to escape."

Wheeling was laughing again.

"Men are foolish," he said.

"I'm not so sure," Lamont said. "For if you were to lose the girl, if she were to go away, perhaps you would be sad. *Perhaps you would destroy yourself?*"

It was a question.

I knew from the silence that followed that he had cleverly placed a thought in Wheeling's robot mind. Lamont was relentless. He continued:

"Self-destruction is a simple matter,"

he said. "Your fingers are like steel. If you were to gouge out that control section behind your ear, the spot where the key gives you new life, you would die instantly."

Wheeling wasn't talking any more. His robot mind had a new problem.

*If the girl went away?*

Standing outside that door, my muscles were cramped and protesting. I knew what Lamont was doing. He had successfully carried his robot through every phase of life and had subjected him to every human problem. Now he was deliberately attempting to make this robot destroy itself because of unhappiness.

It would be a startling and revealing experiment on Lamont's part.

"Of course, humans are odd," Lamont was chuckling again, a hard, emotionless chuckle. "You aren't troubled by foolish emotions."

"No," Wheeling said. "No—I'm not troubled."

He didn't sound very sure of himself.

I heard scraping chairs, then, as I was about to make my escape, Lamont said:

*"I have never told you that the girl—Susan—is my wife."*

I heard his footsteps then, approaching the door and I went hurriedly upstairs and out into the garden. I had to get away from here—away from Lamont, or I would kill him tonight. I had a lot of thinking to do and I'd better get back to my room. I wasn't safe as long as I wandered alone.

THE telephone rang three times before I was awake enough to answer it. At last I managed to roll over and snatch it from the night table. Ward Homun was awake and swearing.

"Don't people know enough . . . ?"

"Hello," I said. "Jim Falter speaking."

"Hell," a gruff voice answered, "don't sound so wide awake and happy about it. This is Lieutenant Launny of the police department."

Something froze inside of me.

"Yes?"

"You been in bed all night?"

"Yes," I said again.

"Who can prove it?" he asked.

I turned to Ward.

"Get over here and talk to this guy,"

I said. "He's a policeman and he wants to know that we've been sleeping all night."

Homun swore again, then his face turned pale.

"What have you been doing?"

"Shut up," I said, "and tell the man what he wants to know."

I heard the Lieutenant's voice on the phone, and Homun answering him. All I could think of was Susan, and wonder if she had been harmed.

"Yes," Homun kept saying over and over. "Yes, that's right. *That's right.*"

He hung up.

"Get your clothes on," he said.

"We're wanted at Professor Lamont's place. Susan's killed a man."

\* \* \*

In five minutes we were at Lamont's. We waited on the porch while a cop came down the hall and opened the door.

"I'm Jim Falter," I said. "Launny wants . . ."

"Sure," he said. "Come on in. Launny's been waitin'."

Launny was a big, rough-cut sort of fellow with a double chin and eyes that could sparkle even at three in the morning. They were sober as I entered. He shook hands with me.

"Where's Susan?" I asked.

He lowered his voice.

"You mean Mrs. Lamont? She's in the other room. She don't feel very good."

Then I saw Don Wheeling's body stretched out on the floor and I knew why. His head was bashed in, and it looked very human, but without any blood flowing from the wound. There was a broken vase lying in shattered pieces near him. Wheeling was crumpled up and lying on his side.

"Your brother?" Launny asked.

I shook my head. I had to be careful of what I said now. Very careful.

"I've never seen the man before," I said. "The resemblance is uncanny."

I heard a little cry behind me and turned to catch Susan as she rushed into my arms. Then she was sobbing, her cheek pressed to my shoulder, her lips against my neck.

"Oh Jim. Jim, thank God I didn't . . ."

I held her away gently. She fainted and the big cop who had been guarding her helped me to get her to the couch. Launny was a little angry because she had got away from the cop and come to me.

"She murdered the guy on the floor," he said abruptly. "She admitted it."

"Where's Lamont?" I asked. "Where's her husband?"

Launny grinned sourly.

"Downstairs," he said. "Come on."

I looked at Susan. She was very white and hadn't come around yet. The cop was bringing her a glass of water. No one had touched Don Wheeling's remains. I followed Launny down the stairs to the basement laboratory.

**J**EFFERY LAMONT was seated at his desk, his head thrown back at a crazy angle. Blood made a red pool back of the chair. Then I knew that the robot, Don Wheeling, had never suffered the emotions of fear or unhappiness. *He had not feared that he might lose the girl.*

Don Wheeling had listened care-

fully to Lamont's suggestion for suicide, then carried out the suggestion carefully, on Lamont.

Behind Jeffery Lamont's right ear was a jagged, blood soaked hole. A hole that steel muscled fingers would make seeking that vital, death-dealing spot that Don Wheeling must have suspected lay inside the head of any man, human or mechanical.

On the desk before Lamont was a ledger. In it was the complete story of Don Wheeling.

After Inspector Launny had read enough to convince him, I noticed the last entry, started but left unfinished by Lamont's hand.

"—When Wheeling finds that he has identical emotions to match with any man's, he will attempt self-destruction. If he does so, and I'm positive he will, the experiment will . . ."

There the notes stopped abruptly, and at that moment, Lamont must have realized that man's emotions cannot always be guessed at. It was then that he felt the steel fingers of his robot tearing and gouging into his head.

\* \* \*

Of course Launny was not satisfied until he had examined Wheeling's body carefully. He was amazed, and I think a little crestfallen. This had been a cut and dried murder case, with a lovely girl involved. It would have meant a front page for Launny and perhaps a good advancement on the force.

He took it like a gentleman, told Susan he was sorry, and that he regretted that her husband had chosen tonight to commit suicide. Launny had Lamont's ledger, and I was sure when he said that, that the Lieutenant would never allow that ledger to become anything but his personal property.

He found one gadget in Wheeling's pocket that he didn't understand, and I relieved him of it.



I escaped the room before Susan had the opportunity to speak to me again. Perhaps you will call me a fool for leaving her then. You see, I had no choice. I had Don Wheeling's key—the key that Lamont's robots needed once a week if they were to go on living. The key that was as important as a heart is to a human.

I knew that I couldn't go back to Susan. For a time, perhaps, she would love me, and be as completely betrayed as she had been by Don Wheeling. Then, someday, she would discover that strange, keyhole opening behind my right ear, and know that Don Wheeling and I were actually twin robot brothers.

THE END

# OIL-BEARING ROCKS



By CHARLES REEVES



**H**ARDLY a day passes but what one or more columnist or magazine writer bemoans the passing of one of our most precious commodities—Oil. In fact, at present, oil bearing land is the cause of the hottest international dispute in this post war world. The United States so far holds the high cards in this game of international oil by reason of sewing up the fabulous Arabian deposits, but little known to most people is the fact that we also have an ace in the hole—rocks that can produce oil, and, oil enough to last for many years. This sounds like an incredible claim, but here are the facts.

Oil can be extracted from a type of rock formation called shale. This shale, a slate like rock formation, contains up to 90 gallons of fuel per ton. According to reliable estimates, we have only enough petroleum deposits to last from 12 to 15 years, but tremendous shale deposits have been found throughout the West; enough to supply us with an estimated 90 billion barrels of oil, or almost five times our known fuel reserves. The largest area of these shale rocks is in the Rocky Mountains, and extends into Utah, Colorado and Wyoming. In this one strata alone, there is over 70 billion barrels of fuel.

Scientists have shown us the reason for this seemingly impossible fact. Millions of years ago this Western territory was a gigantic lake, and in this lake prehistoric organisms lived and died, their bodies forming a part of the lake's bottom. As time went on, the lake dried up and at some later date a subterranean upheaval stacked the rows of shale up on end as if they were so many ranks of marching soldiers. The oil content is the result of the hydrocarbon contained in these age-old organisms.

The fuel contained in the rock is in the form

of a solid and the extraction presents quite a problem. The present method is to heat the rocks which turns the fuel into a gas; the gas is then condensed into a liquid and is then ready for a refining process. In this particular section of the Rockies, the oil content runs from 10 to 65 gallons of oil per ton of shale.

Oil from rocks is by no means new as this very process has been used for several centuries in France, Scotland and the Far East. The primary reason we have not developed shale oil in this country has been the cost of extracting plus our unusually large amount of liquid oil. Now, however, with a severe shortage expected in the near future, many war developed techniques will be tested in order to reduce the cost of oil per gallon. New techniques in refining must be developed too, as shale oil differs from petroleum in chemical makeup. As it is yet too expensive for private companies, the U. S. Government has taken the initiative in trying to devise new and cheaper methods. At present, the Bureau of Mines is setting up a processing plant in Colorado on shale reserves covering more than 100 square miles and here various methods of crushing and extracting are being tried. The Government has provided funds for a five year program and by that time it is thought that the details will be worked out to the point where shale oil can take over when the regular reserves run out.

It is estimated that a full sized shale mine could produce over 15,000 tons of shale per day, and that such a mine could work for 20 years and still only exhaust a shale bed one square mile and 70 feet thick. Sixty such mines can be operated on land that the Government now owns, so it can be seen from these figures that it will be some time before a real oil shortage will exist.

# THE GIANTS OF MOGO



(Continued from page 48)



## CHAPTER XV

"I CAN'T figure that guy out," Anna said to George the following day.

"He's high strung," George said. "He's been through so much he can't relax."

"But that shouldn't make him cuss us out the way he did last night when you stopped the wingman. You probably saved his life."

They were sitting at an outdoor table near a mound-shaped pink marble building—one of the capital's popular indoor and outdoor restaurants. The waitress brought their lunch and they ate hungrily as they talked.

"The thing is, he's had so many close calls on that Mogo voyage," George declared, "that the whole thing has got into his spine. He'll not draw a free breath 'til he explodes that giant off the earth."

"That goes for all of us," said Anna. "But I still say he gives me the Saturn whirl. Maybe he'll calm down if everything goes well at the meeting."

"Anyway," said George, "he finally turned my space flivver back to me. Guess I needn't have worried."

"Have you checked it over?"

"First thing this morning. It's in section 28 of the big hangar, all set to travel."

"Swell." Anna's face lighted with inspiration. "Then we won't have to take the Express back. We can—"

George turned a sharp look at her.

"I mean *you*," she amended. "You can go back in your own ship."

George nodded.

"And if you want company," she added, "There's Glasgow. He might be going back. Or Judge Lagnese—"

Her voice trailed off. George was mentally sorting the possible companions. You thought twice before choosing someone to share the long hours of space travel with you. Most of George's cruising had been done alone, with only the consolation of a mental companion—Judy Longworth. And now that there was no longer a Judy Longworth, George realized he had never really known her. She had been a name. A game of make-believe around a name and a face that he had contacted a few times by television. Would she have been anything like Anna?

"You're thinking about Judy," Anna

He blew a mighty blast from his lips  
and birdmen flew in every direction





said abruptly. "Pardon me for intruding."

"I was thinking about how you jumped on top of the dog-pile last night when I tackled the wingman," George said. He forced a chuckle and went on gulping his food.

The meeting that evening, held in one of the government buildings, was an invitation affair. Whether that had been the plan of Glasgow or Judge Lagnese, George did not know. Both men sat at the table on the low stage. The ushers closed the doors and the small crowd of sixty men and women quieted.

"The greatest tragedy of all time has come to our beloved planet," the red-faced little judge said as he began his presentation of Garritt Glasgow. "But we have not come here tonight to weep. We have come to act. I'm proud to present one of the world's greatest explorers, who has a surer grasp of the earth's troubles than any other living man. Garritt Glasgow."

The crowd applauded lightly.

George was tense with excitement as Glasgow rose to speak. Here was history in the making, George thought. After all, it was true that there was no one who knew quite as much about the earth's catastrophe and the gigantic creatures behind it as did Glasgow. No one had a surer grasp—

*Grasp?*

Glasgow stumbled just slightly on that word as he was beginning.

"It is true that I have a surer grasp on the earth—on the earth's *troubles*, than any other living man."

Anna nudged George. Glasgow's eye swept over him and he felt a moment of discomfort, as if he had been caught reading for someone's guilty secret. *Garritt Glasgow's grasp of the earth.*

He crushed the thought out of his mind. Everyone was listening intently. Glasgow was telling the story of the Paul Keller expedition . . . Keller's dastardly plan . . . Keller's acts of murder . . . Keller's awful bargain with the Mogo giants . . . the earth betrayed . . . the earth *sold* . . . the earth to be bombed and shattered and pulverized into a skyful of dust. . . .

Then—the first attack by one of the giant's, according to plan—Paul Keller's plan!

"And all the while I was fighting at the bars of my jail, helpless to prevent—"

THE throb of Garritt Glasgow's voice made you tremble. George had never felt the hideousness of Paul Keller's treacheries so deeply before. Now it seemed as if everyone would want to race back to the earth and help hunt down the evil man.

"So I call upon you, you loyal colonists who have not forgotten that the earth was once your home—" Glasgow paused for just an instant, and it seemed to George as if every person present was right in the palm of his hand. "I call upon you to grant me the privilege of hunting down and destroying these two evil forces—the human traitor and the Mogo beast. I call upon you for financial support—"

"Just a moment, Mr. Glasgow."

The voice of the judge cut in, solid, like a barrier of marble.

"What's the matter?" Glasgow snapped.

"Are you assuming that you have the right to destroy Paul Keller without a trial?"

"After what's happened, *yes!*" Glasgow's voice rasped with sarcasm. "How much of a crime, in your opinion, must a man commit before he deserves the death penalty?"

"You have no authority to administer the death penalty," the judge said. His white moustache and goatee flashed whiter than ever against the angry purple of his face.

"I'm demanding that this meeting give me the authority!" Glasgow shouted. He waved to the crowd. "*I'm asking you—*"

"WAIT!" the judge barked. "These Venus people don't own the earth. They haven't the authority. They're no longer legal residents of the earth."

"Then there isn't any authority. I'm free to do whatever I damned please!"

"Wrong again. There *is* an authority."

"Who?"

"A committee."

"A committee—*where?*"

"On the earth. At the new headquar-

ters, in the Banrab Valley."

The judge's words caused disorder among the sixty guests. The importance which Garritt Glasgow had almost succeeded in bestowing upon them had suddenly been taken away by the fiery little judge.

"Listen to me," Glasgow said, gathering himself up for a more conservative attack. "I've been through enough to know what I'm doing. Have any of you felt the hot breath of a Mogo giant pour over you like a Turkish bath? No, not you. But I have. I've seen it all, first hand. So I've come to Venus to mobilize your support. I want your backing. I want your money."

To this much the crowd responded with affirmative nods. But when Glasgow added, "And I want your authority to destroy—" the judge stiffened again. Refusing to be stampeded, he sprang to his feet.

"We're still Americans, Glasgow. We believe in trial by jury."

For a moment the two little men glared at each other, one of them beet-red, the other almost ashen, his nervous fingers twitching.

"Trial by jury—on whose *authority*?"

Garritt Glasgow was flinging the judge's words back at him. "What right have *you* to say? There's a committee at Banrab to decide such matters, I understand."

"I am one of that committee," said the judge. "Before I left the earth we agreed that Paul Keller, if he could be found, should have the right of trial by jury."

Glasgow instantly turned his appeal to the crowd.

"Listen. We have one member of the earth's committee present—a softie. He wants you to take his word for it—the rest of the committee not being present—that they've decided this menace is *not* to be shot on sight—"

The judge brought his fist down on the desk. "Your sarcasm is out of order. If you doubt my word, there are two other members of the committee present."

"Call them up," Glasgow snapped.

"Miss Pantella and Mr. Hurley."

his feet. Anna led the way, and he followed. The crowd was holding its breath. He didn't quite stumble on the steps leading up to the low stage. He noticed that Anna was tall and graceful and had rather good-looking legs. This was history in the making, he thought, and how was it that he'd never noticed before that Anna had good-looking legs?

"Miss Pantella, are you a member of the newly organized committee for governing the new earth?" the judge asked.

"I am."

"And you, Mr. Hurley?"

"Also." George looked the judge in the eye, at the same time thinking of Anna's calmness. And at the same time aware that Garritt Glasgow was walking around to take a position on the other side of him.

"What," the judge asked, "did our committee decide, a few days ago during our first meeting in the Banrab Valley, concerning Paul Keller, Miss Pantella?"

"We decided if charges were brought against him for betraying the earth, he should have a trial by jury."

"Mr. Hurley?"

"Trial by jury."

The judge turned to face the audience, satisfied that he had swung his point. However, everyone was looking at Garritt Glasgow. George turned as Glasgow's sarcastic smile broke into a laugh. He tossed his little head back and gave a loud, cackling guffaw.

"This is rich, ladies and gentlemen! This is rich! Can't you just see this government of softies go to work?" He doubled up with laughter, pointing a finger at the judge. "I ask you, honorable committee, when the Mogo giants throw bombs at the earth, what about it?"

"What do you mean?" the judge asked, purpling.

"You wouldn't kill the giants on sight, would you? No, you'd offer them trial by jury!"

The crowd laughed. The little judge's eyes blazed and his moustaches twitched. Glasgow stopped the laughter to shoot the question with deadly seriousness.

"I'm about to ask for financial aid, so I can go back to the earth and put an end

ANNA nudged George. He broke out of his paralysis somehow and came to

to the giant. Judge Lagnese and the rest of the committee knows that I came here for that purpose. I'm volunteering my services because I have an interest in the earth. I want to see it *safe*. I ask you, does the committee want that mile-high monster from Mogo killed on sight? Or have you decided to give it a trial by jury?"

The judge glared, speechless with rage. The fiery little space man had given his dignity an awful beating. The crowd was beginning to smile.

"I want my answer now," said Glasgow icily. "Apparently I stand alone in my fight for the earth. At this moment I know how Washington must have felt at Valley Forge. But if I must fight alone—"

Anna Pantella spoke up sharply. "Aren't you forgetting someone?"

Glasgow changed his tone. "No. No. I'm not forgetting you two friends. As long as I have two lieutenants like you, Anna, and you, George—" he stepped over to stand between them, placing a hand on the shoulder of each, much to the judge's chagrin, "I can endure the chill of this Valley Forge. You two helped to rescue me. And you lent me your space ship. No, I'm not alone in this cause, I'm sure."

He looked at the crowd again, and George knew that he had somehow restored their confidence in him.

"Sometime the committee will empower me to destroy the Mogo giant . . . And when I succeed, I shall have cleared the path for you people, if you wish to come back . . . to rebuild."

The judge cleared his throat. He had been unable to rally, and had stood by, enduring a bad moment as best he could. Now, however, he turned to accept the situation gracefully. As if to restore the dignity of the meeting, he said, quietly:

"Three of the earth's committee stand before you, Mr. Glasgow. If we three authorize the killing of the giant, I feel sure the rest of the committee will concur in our decision. Miss Pantella?"

"Yes."

"Mr. Hurley?"

"Yes."

"And I, Judge Lagnese, also vote yes.

Therefore the immediate killing of the Mogo giant is hereby authorized." The judge, his redness returning to a more temperate pink, made a polite gesture toward the triumphant Glasgow. "You may proceed to collect funds and take whatever measures you find necessary to destroy the giant as soon as possible."

Garritt Glasgow bowed, matching the judge's dignity.

"Thank you, Judge Lagnese. As a first step, I hereby appoint George Hurley as my assistant in this task."

## CHAPTER XVI

GEORGE HURLEY had made a few previous trips to Venus, nevertheless the bright lights of the capital city were still a novelty to him. As he accompanied Anna down the steps of the government building, he stopped to gaze at the brilliantly lighted street lined with entertainment palaces.

"I need a good movie to calm my nerves," he said.

"I should think so," Anna said.

"Well?"

"Just drop me off at my hotel, Big Boy, and you can run along."

"What's the matter with you?"

"Nothing. A little weary from the meeting, that's all."

"Don't you feel the need of a movie or something?"

"Are you asking me for a date?"

"I'm just telling you you can come along if you want to. It makes no difference to me."

"If it makes no difference," said Anna, "just drop me off at my hotel. Maybe I'll call my brother. Maybe he'll *want* to take me to a show."

"Oh."

They walked along the brightly lighted windows. George was in a heavy mood. There were new responsibilities weighing on him now. He wondered what Glasgow's plan would be for getting rid of the giant. Tomorrow he and Glasgow would confer and he would have to be on his toes.

"I've got an idea," George said abruptly. "Why don't you and your brother

and I all three take in a show yet tonight?"

"I'm not afraid."

"I haven't even met him."

"He's a pretty busy man," Anna said. She frowned, and George thought she was being strangely evasive. Earlier, when he had suggested a dinner with the brother, she had found some trifling objection. She added, "I've already had one visit with him today. He might not like it if I'd call him again—this late."

"That settles it," said George. "You're coming with me. We're going to an old time earth-made movie. It'll be a long time before we have any movies on the earth again."

"Okay. It's a deal. Double feature?" "Triple."

It was the first show George ever attended in which his own name was flashed on the screen. Not as a part of the news-reel, though there was that, too—the landing of the Venus Express and a word from the good-looking girl who had somehow survived the earth's disaster. But the flash of George's name, just as the feature began, was a call to report to the box office at once.

"Keep my seat, Pantella. I'll be back soon."

Anna caught his hand. "Be careful." Then, "I'm coming with you."

At the box office they found Madame Zukor.

"I happened to see you go in, Mr. Hurley. I'm sorry to deprive you of your show, but this is quite urgent. If I may talk with you alone—"

Madame Zukor was wearing a silver cape over her black jeweled gown. Her dark eyes shone with a mysterious light. She could do well as a fortune teller, George thought. He turned to Anna.

"Why don't you go back and finish the show?"

"As your confidential secretary," Anna said, "my first duty is to look after you. Where do we go?"

But Madam Zukor said no in no uncertain terms, and the best that George could do was to advise Anna to go and call her brother. Then he offered Madam Zukor his arm.

It was a small tea room. The air was heavy with incense. The red shafts of lights along the walls gave George the feeling that he was being hidden in some vale of mysteries.

The light was dim in the booth that Madame Zukor chose, yet it flashed sharply from her silver cape and jeweled black dress. She ordered tea. She smiled pleasantly across the table at him.

"Anyone can see that you are honest, Mr. Hurley."

"I try to be," George said artlessly.

"Even when there are temptations, you are honest. Aren't you, Mr. Hurley? You would never be swerved by such a thing as a bribe."

"I never thought much about it." George stirred his tea with a steady hand. "What's the matter? Someone figuring to bribe me?"

"My dear, I hope not. If I thought such a thing would swerve you, I wouldn't have urged Mr. Glasgow to choose you as his assistant on this job."

George looked up in surprise. "You urged it?"

"Certainly. I guessed you to be a man of strong character, and so—"

"You and your brother work together on a lot of things, don't you?"

It was Madame Zukor's turn to be surprised. "Who said that he was my brother? How did you know—?"

HER tone had suddenly sharpened, and for an instant he wondered if all of her politeness was only a disguise. But at once she was smiling again, and her eyes were gleaming with the brightness of jewels. She reached over and touched his hand.

"You're quick, aren't you?" she asked. "That's what I like about you."

George edged his hand away and rubbed his cheek uncomfortably. "What's this bribe talk? I don't get it."

"We want to be sure—my brother and I—that we have no further clashes with Judge Lagnese and the rest of the committee. Yes, I was listening to your meeting from the wings. We both realize how important it is that Paul Keller be brought

back *alive*—so he can face the trial. You see?”

“Of course.”

“But suppose you can’t take him *alive*. Suppose he resists—”

“Could be.”

“And suppose he gets killed—just suppose. It could happen, you know.”

“Sure,” said George. He considered. “It’ll look a lot better to the judge and all of us if it doesn’t happen.”

“Exactly,” said Madame Zukor. “That’s why we are depending on you—a man of solid character—to handle this job for us.”

“Well—er—”

“And we know that that *secret offer* which one of our Venus friends made won’t have any effect whatever on you—three hundred thousand dollars.”

“Huh.”

“This is completely confidential.” Madame Zukor pressed his hand. “One of our wealthy friends was so stirred by my brother’s pleas that he has made this proposition—entirely in secret, you understand.”

“Yes?”

“If Paul Keller *should* be killed, accidentally or otherwise, while we are attempting to capture him and bring him to justice, a three hundred thousand dollar gift will be made to the person who brings him back *dead*.”

“Oh?” George almost spilled his tea. “And if he’s brought back *alive*?”

“No gift.”

“Um . . . I see . . . Curious, isn’t it?”

“Yes, indeed . . . Three hundred thousand dollars.”

“Three hundred thousand . . .” George gulped his tea.

“So I wanted to be sure—very, very sure—that you wouldn’t be influenced in any way by this secret offer. No, I’m sure you won’t be. We can depend on you, Mr. Hurley.”

She squeezed his hand, nodded to him very confidently.

“There, that’s all, Mr. Hurley. If you’ve finished your tea, we’ll go, now . . .”

THE following day George went to the space port and spent three hours

checking over his sky flivver. Satisfied that everything was in perfect condition, he caught a cab to keep his appointment with Garritt Glasgow.

Glasgow was eventually found at the prison grounds where he was directing the loading of a space cargo boat. As George approached, he heard the savage cries of wingmen.

“Loading them up!” George said to himself. “Packing them off for a trip to the earth. I wonder what the committee would say.”

Glasgow nodded an impersonal greeting to George and went on directing the men who were doing the loading. The wingmen screamed and beat their wings against the bars of their cages. When the crane swung them past some guard or spectator, they would reach out with their claw-like hands as if to gouge someone’s eyes out. No one would doubt, from such pandemonium, that they were mad.

Six cages were loaded onto the ship, ten wingmen to a cage. Among them, George noticed, was the limping little purple-winged female who had been so violently whipped two nights before. And there was a certain big green-winged fellow that the guard had spoken of as “dumb.” The boat had been hired, complete with a crew of three men, and George guessed, from all appearances, that it was about ready for flight.

“The folks at the meeting last night must have come through with good donations,” George ventured.

“They believe in me,” said Glasgow. “You see the advantage of my plan?”

“Not quite.”

“That ship is loaded with explosives as well as wingmen. There are enough bombs to blast the Venus capital building up by the roots.”

“So?”

“So the wingmen will be flown to the earth and released over the head of the Mogo giant. As they fly out they’ll help themselves to the weapons. What they do to the Mogo giant will be purely their own mad business.”

“They’ll do plenty,” said George. “I thought the giant was to be my dish.”



Glasgow said he had thought it over from the long-range view and decided on the wingmen. There was just a chance that in some future year the paths of the earthmen and the Mogo monsters might cross again.

"If that time ever comes," Glasgow said, "it will be well to be able to say that we earth men never harmed a hair of a giant's head. The blame will all fall on a group of mad wingmen from Venus."

It was an ingenious dodge, George thought, and he tried to interpret it generously. But he wondered, what might it do for the relations between the Mogo giants and the planet Venus? He asked George whether this point had been considered.

Glasgow answered with a wink. "When we get a solid grasp on the earth, my boy, we won't give a damn what happens to Venus."

*Grasp on the earth.* There it was again. Whenever George heard that phrase he thought of an octopus trying to wrap its tentacles around the old globe. Well, there was a committee at Banrab. Nothing could go too far wrong as long as the committee survived. And why shouldn't it survive? Nothing less than a Mogo giant might harm it, and the giant would soon be blown to atoms.

"So the giant is their dish," George said, as the last cage of wingmen was loaded.

"And Paul Keller is your dish. Yours to bring back for trial, I mean."

"I understand."

"My sister talked with you—"

"Yes," said George. "I can promise you both that I'll not take advantage of your friend's offer."

"But if you should *have* to kill—in self-defense—or to prevent escape—you understand—"

"Three hundred thousand."

"Three hundred thousand. . . er . . . have you thought what you'd do with it?"

GEORGE frowned. "Well, I suppose I'd donate a part of it to some worthy cause. Something to help the earth rebuild."

"Excellent. The new earth would never

forget you. For example, if you gave the money for a home for the new Director of the Earth—whoever it might be . . . mmmm." Glasgow was looking at the clouds as if seeing bright visions. Then he turned with the air of an executive who held the reins of a new civilization. "You have your orders, Hurley."

## CHAPTER XVII

IN THE vast thirteen-mile space ship from Mogo, the most important thing in the world was conversation. Gret-O-Gret wanted to talk with his two tiny earth friends. And they, Paul and Katherine Keller, were burning up with human anxiety to converse with him.

"Now he's beginning to understand . . . No, he's got us wrong again . . . Don't hurry him, Paul. Be patient. We mustn't wear him out . . . For goodness sakes, don't make him angry at us. He can only learn so fast . . . Let me talk to him awhile, Paul. You're so—so clumsy."

Katherine was a veritable dynamo after she had had some food and rest. The conversations had already gone on for hours, and the Mogo giant showed no signs of fatiguing. He was learning much, much faster than Paul had dared hope.

"He won't get angry," Paul said. "He knows we're experimenting under difficulties. He'll play ball with us, don't worry."

Yes, Paul was confident of that. One sure bit of communication had already made the ground beneath their feet as solid as Jupiter. The secret of that exchange was like a warm glow in Paul's heart, and all of Katherine's scolding couldn't chill it.

"You rest a while," Katherine said. "I'll carry on."

And so it went for hours. Gestures. Charts. Pictures. *Words!* The magic of the spoken word!

An amplifying system had been rigged up so that they no longer had to shout to be heard. Their merest whisper carried into the cavernous brown ears of Gret-O-Gret's head. And he, in turn, gave back his funny, breathy sounds—soft whispery imitations of their words.

Hours of practice. The giant's under-

standing was like a spark leaping into a flame. More hours of practice. The flame was spreading into a whole brainful of fire. Practice, practice, practice.

It was all so exciting that Garritt Glasgow, thought to be safely imprisoned and comfortable with plenty of food and water, was quite forgotten.

From day to night to day again the practice went on, and the two Kellers worked with all the ingenuity they could command.

Eventually, within the hearing of both of them, Gret-O-Gret repeated the promise that Paul was sure he had understood earlier, to his own secret delight.

*"I am your servant, Paul Keller. I am your friend and servant."*

Katherine, about to say something, held her silence, obviously awed by the giant's declaration. Paul wondered if she might be jealous, to know that he was the chosen one. The giant had declared his wish plainly enough. And when he repeated his statement he made it crystal clear: As long as he was on this planet he was Paul Keller's guest and willing servant.

"Why, that's wonderful," Katherine finally said, a little breathless. "He seems so eager to do something for you."

"For both of us," said Paul.

"But especially you. And I was accusing you of bungling things. Well—"

*"I want to help you restore your world."*

"Oh, so that's it," Katherine said slowly.

It had dawned upon the Kellers some time before that the earth as they had known it had been destroyed. Paul's fleeting impressions from the hour of landing, together with their daylight view of exploded hillsides, upthrust river beds, and buried towns, had convinced them that Mox-O-Mox had made good his awful threats. Slowly the awfulness of the earth's tragedy had struck them. When Gret-O-Gret's vocabulary rose to the occasion, they learned from his own lips what he had seen on his arrival: a planet in utter ruin.

Accordingly, they were deeply moved by the friendly promise, *"to help you restore your world."*

"Let's ask him," Katherine suggested, "to cruise around the world so we can see

how serious the situation is."

Then it was that Garritt Glasgow was remembered.

*"What shall I do with the man who came with you?"* the giant asked

"Glasgow is an enemy," Paul breathed into the microphone. "We must be careful. He is dangerous. He kills. He was the one who—"

And thus Paul was able to explain to Gret-O-Gret for the first time that Glasgow, not Gret-O-Gret, was the one who had killed the two other persons on the ship at the time of its arrival at Mogo.

*"Then I did not kill?"* The relief in the giant's voice was wonderful to hear, and the breath of his sigh flooded over the Kellers softly. Again, *"What shall I do with him?"*

THE giant reached across to the other shelf, picked up the cage and brought it over to where they stood. He shook it a little in his great fingers, then held it up to the light.

"Wawwf! GONE!"

Gret's sudden exclamation blew Paul and Katherine off their feet.

"Gone?" Paul yelled. "Where?"

"GONE!"

It was a curious search. There was little that the Kellers could do other than watch. Gret quickly closed the airlocks of his ship and went to work with the special little brush-like instrument he had once used to extricate Glasgow from his clothes.

"The de-louser again," Paul observed. "A de-snaker might do better."

"I don't understand it," Katherine said. "The screen around Glasgow's cage has been cut with a ray gun. He's had help from someone."

"Oh-oh. So that's it! By this time he's telling the earth people fancy tales about our expedition. I'd bet my pistol on that!"

"Save that pistol, Paul. You're going to need it."

## CHAPTER XVIII

IN THE days that followed, the Kellers and their Mogo servant searched diligently for the missing prisoner.

They worked on several theories. They searched intensively within walking distance of the ship. They examined the ruins of the nearest towns thinking that the culprit might have found an automobile in working condition and made tracks over the rugged landscape. Most of all, they watched the skies. If any plane or space ship had appeared, the thirteen-mile Mogo boat would have risen to pursue.

Unsuccessfully the search went on. They used the Mogo boat a part of the time, skimming slowly over the scorched and blasted land. They would return, like homing pigeons, to their midcontinent station where Gret-O-Gret had originally unloaded his box of food and supplies. The gleaming white surface of that unopened box became the landmark that they sought at sunset after a day of journeying.

Eventually their earlier eagerness to overtake Garritt Glasgow declined. Katherine guessed that he might have been led off into the scorched wilderness by some crazed person who had somehow escaped the explosions. Paul held to the theory that a plane or space ship might have whisked him away.

But why? Why Glasgow and not the Kellers?

Their curiosity faded as they became much more concerned about the state of the earth as a whole.

"Let me help you set your cities upright," Gret-O-Gret would say.

His offers were tantalizing. The sad fact was, there were no populations left to occupy the cities, whether upright or upside down. Ruins, ruins, everywhere. Ruins and death.

"Mox-O-Mox should be made to see what he has done," the giant would whisper when his mood dropped to its lowest point.

"He might be made to see, but he would feel nothing," Paul declared. "Our plight would impress him no more than a million dead insects."

"Mox-O-Mox should be punished," Gret said. "The courts of Mogo would punish him if they knew."

"Would they?" But Paul shook his head. That would do no good. The dam-

age was already done. Besides, it seemed doubtful whether the courts of Mogo would ever bother to look into the rights of such tiny people. "No, I don't think they will ever punish Mox-O-Mox. Nature is always on the side of the giants, you know. The little fellow must look out for himself or he'll get stepped on."

Gret-O-Gret looked down from his height with a questioning smile. Maybe he thought Paul was being unnecessarily bitter. *Gret* never stepped on the little fellow.

"Do not be afraid, Paul," Gret said softly. "I will not step on you."

They had found an undamaged automobile among the wreckage of a town and had made a sound truck of it. This proved to be the handiest means of surveying the damages along the surface of the earth. They were able to keep pace with Gret-O-Gret as long as he walked slowly, and his ankle-cars were so sensitive that Paul felt completely safe from his step. Occasionally one of the great pyramid-like feet would seem about to descend upon them. But Paul would touch the horn and sometimes Katherine would screech through the loud speaker, "*Watch it, Gret!*" and that would be sufficient. The mountainous foot would hover motionless overhead until the car had moved out of danger.

The short sections of unbroken highway were like pieces of a jigsaw puzzle. A long and uninterrupted car ride was impossible. Gret-O-Gret would often scrape the debris off a stretch of road with the edge of his open hand. Swift and effortless. Katherine began to appreciate the meaning of his offer to restore the earth. When they came to places where no trace of pavement was to be found, Gret would simply pick up the car and passengers and carry them on until they asked to be set down again.

"He does it so easy," Katherine said. "But have you noticed anything strange?"

"You mean his breathing?" Paul asked.

Sometimes Gret would stop, breathing slowly if not painfully, and the survey of the ruined earth would come to a dead stop. Though the giant would be conversing pleasantly a few minutes later,

Paul began to fear that the earth's climate did not agree with him.

"It might be the atmosphere," Katherine suggested. "The air is thinner up around his head. A mile of elevation makes a lot of difference."

This seemed a reasonable guess. Paul noticed that after such moments of sickness Gret would come down to the surface and rest on his elbows, ostensibly to examine some bit of the earth's ruins for himself. Then he would breathe more easily.

"Yes, the heavier air along the surface is drawing him down," Paul concluded.

"I think he likes to come down and play with our toys," Katherine observed.

THEY stopped their car when they came to an underpass that had been clogged with rocks. There were railroad tracks overhead, and the railway viaduct had been tilted. Just to amuse Gret, they climbed up to the tracks and released a freight car from the end of a half-buried train. Gret watched the car coast down across the river. He smiled down at the sight. Then, before the car could run off the broken track he reached down and carefully tilted the whole viaduct the other way. The car came coasting back toward Paul and Katherine, and they made tracks down the embankment. But as usual, the giant played safe. He lifted the car off the tracks before it could tumble down, set it in a mud puddle, and motioned to his playmates to come on—they were holding up the party.

"Whimsical, isn't he?" Katherine observed. "I don't think he feels very strongly about rebuilding all this mess. It's just play to him."

"It would take thousands of giants, working day and night the rest of their lives, to rebuild this continent," Paul commented philosophically. "When you stop to consider, our own race of men, working in organized groups, have been giants themselves, in a sense. When you stop to realize what they've accomplished in this land—"

"And finally it all comes to this—in the wink of an eye."

"It comes to this," Paul echoed.

"If they came to life, would they blame the Paul Keller expedition for all this ruin?" Katherine could get a bad case of the glooms easily during these blue days. Paul tried to console here.

"The wonder is," he said, "that something like this never happened to the earth before. The universe must contain innumerable forces of destruction as deadly as Mox-O-Mox's evil whims. It's a matter of chance where they'll strike."

"Do you think Gret has any serious thought of bringing Mox to justice?"

"I wonder."

Their philosophies were interrupted by an intruder from the skies.

Gret-O-Gret stood tense, the low hum of the ship having put him on his guard. His ankle-ears helped him find the exact direction of any approaching sky planes before it came in sight. He was already pointing toward it when the Kellers caught the first hint of its approach.

"Friend, I hope," Paul said. "It's coming straight toward Gret's head."

Gret's form towering up into the clouds, would be an easy target if it were an enemy, Katherine observed. Paul nodded. He was recalling that the first sight of a Mogo giant was a shock to anyone. Then—

"Wingmen!" Paul shouted. "*Venus wingmen!*"

Cruising slowly a half mile above Gret's head, the cargo ship had opened a side door and instantly a flock of wingmen spilled out. Twenty or thirty dark angel-like forms against the sky. Then more—a half a hundred, at least—and still they came.

Paul shadowed his eyes against the sun, trying to guess what the tiny bat-like specks meant to do. Some of them floundered a moment. The air was strange to them.

"They're after him!" Katherine gasped. "They're after Gret."

THE air was strange to them, and they were badly organized for an attack, if such they intended. Then Paul saw. They were loaded. The weights they were carrying made them flop and struggle against the air.

"*It must be bombs!*" Paul shouted. The

amplifier carried his cry to the nearest ankle-ears. *"They're after you, Gret! Don't let them come near you. RUN!"*

Gret stood as solid as a shaft of rock. His chest swelled. Didn't he understand the danger? This was all too plainly an attack. Someone had put these creatures up to mischief, and Paul remembered well the Venus wingmen's talent for mischief.

*"Don't swing at them!"* Paul shouted. *"They'll blast your arms off! Run! Run! Gret!—What's the matter?"*

The closest wingmen were almost near enough to hurl their explosives. Katherine screamed. Terror struck through Paul. Had this friendly giant come all the way from Mogo only to be blown to hell in one unprotected moment?

*Pwooooo!*

Gret-O-Gret blew a great gust of air from his lips. Before Paul heard it he saw the puffed cheeks give forth with a terrific push, and the mountainous chest suddenly contract. A veritable storm! A flimsy cloud formed around the five wingmen who were closest, and Paul knew it must be a shower of feathers. The giant's puff of air was blowing their wings clean. They instantly turned in their flight.

"Good work, Gret!" Paul's terror suddenly turned to jubilation. "Good work! You've got them on the run."

"Thank heavens!" Katherine breathed.

It was a strange spectacle, as viewed from the ground. About sixty wingmen a mile high in the sky were chasing off in sixty different directions. At the same time they were dropping their loads without reference to any target. The bombs descended toward a section of railroad track, or over the wreckage of what had once been a filling station, blowing pumps and rails and tin roofs upward in a series of fountains. Some of the bombs found dry earth, and a geyser of dust leaped up to celebrate some wingman's flight.

"Scared to death!" Katherine observed. "Thank goodness, Gret had his head about him. He knew exactly what to do."

Paul was breathing with relief. If the giant had swung a fist at that flying arsenal, he'd have lost a cluster of fingers, at least, and possibly an arm, or a head.

"There may be more coming," Paul called to Gret. "Watch it. They're after your scalp."

"Why?" the giant asked. "Why, am I an enemy?"

"I'm not sure."

"Do they think I am the guilty one?"

Gret made a wide-arm gesture toward the ruined land.

His question was left hanging in the air. Paul and Katherine were busy watching the flight of the wingmen. They were being called together by one leader, a large fellow whose wings showed green when he turned through the sunlight. Some of the erratic ones refused to follow, but at least three-fourths seemed glad to obey his command.

"The big boy is probably squawking his throat out to try to make them behave," Katherine said. "He tried to pull them off in another direction the minute they poured out of the ship."

Leave it to Katherine of the keen eyes to catch such a detail. Either the big green-winged fellow was the biggest coward of the lot, or else he had some ideas of his own. Something made Paul feel that there was a purpose in his maneuver.

According to Gret-O-Gret they were heading for a cliff about seven miles away—the highest elevation anywhere around.

"Where did the space ship go?" Paul asked.

Gret lifted his face and pointed upward. The cargo ship had spiralled upward and was apparently hovering over the flock of wingmen, trying to direct them. It was completely unsuccessful, however. When it cruised downward, the wingmen scattered in all directions, coming down to the surface and hiding in the rugged terrain.

"Well," Paul said, after both ship and wingmen were out of sight, "I don't know what to make of it, Katherine. But I know this. We can't let those winged boys get a-hold of any more munitions."

"Don't you realize, Paul, that Garritt Glasgow is back of all this?"

"If he is—" Paul began thoughtfully.

"Of course he is!" Katherine wailed. "Oh, Paul, you're so slow. Can't you do something?"

## CHAPTER XIX

WHEN the sixty wingmen were blown back by an unexpected storm from the lips of the giant, their natural leader, Green Flash, was ready to make the most of his opportunity.

"Now, Black Cloud, you'll listen to me!"

Not many of the flock heard Green Flash cry his hard challenge, but everyone saw what happened. Among those who did hear, there were enough wagging tongues to spread the story to the others.

"Come with us, Black Cloud, before you lose your last feather."

The wingmen heard Black Cloud roar with humiliation. The black feathers were showering from his wings. The left wing was almost stripped white from the tornado-like blast.

"I'm coming!" Black Cloud shrieked. "Help me! I'm coming."

It was an awkward flight, with one naked and bleeding wing. Green Flash and two others offered help. Together the flock retreated toward a cliff that promised protection. Out of danger, they talked excitedly as they flew. Some were angry over their own cowardice and wished they could have another chance at their colossal target. But there were many who said, "Green Flash warned us. We should have listened to him. Why should we risk our wings to do some earth man's killing for him?"

All along the skyway from Venus Green Flash had done his best to put this idea across with his fellow prisoners in the cargo ship. "*It's not our grudge, comrades. It's our chance to escape the cage,*" he had said over and over.

But his idea had been tossed aside by his comrades right at the last minute. When the crew had given them a chance to grab some bombs as they jumped out, and yelled at them that they were free to go hunting for big game, the excitement of the moment had gotten the better of them.

Big game, indeed. They had gone for it with a vengeance, ignoring the cries of Green Flash.

Now they were a soberer lot, as Green Flash paced the edge of the cliff talking to

them like a father, and they sat before him, panting and perspiring.

"Don't moan, you silly ones. You'll grow new wing feathers. And you'll find all the big game you want, too."

"You mean we'll go back and get that walking tornado?" Black Cloud asked.

"I mean we'll find our share of food somewhere on this planet. But I mean we won't do any *indiscriminate killing*—not if I can help it."

Green Flash stood before them, strong and wise. The evening sun burned bright in his keen eyes.

"For the first time in many many weeks we are free from our cages. The land feel beneath our feet is the land of a planet called the earth. If your ears have served you, you know that a great catastrophe has recently occurred here. This land is no longer inhabited."

The winged female, Purple Wings, the victim of the recent lashing at the prison, was watching Green Flash with admiration. She stepped forward and said, "But *we* are here, Green Flash. So the land *is* inhabited."

Several of the flock murmured their applause. Plucky little lady, Purple Wings. She had come through her recent injury bravely. Though she was still sick and in pain, she carried herself proudly.

"So you think," said Green Flash, "that we might inhabit this land ourselves? My comrades, that depends."

BLACK CLOUD started to break in, but someone hushed him. Everyone waited for Green Flash to explain.

"It does not depend upon the land or its resources. From what we have heard of the earth, we know that it would reward us richly. From what we know of its recent civilization, we could be assured of bountiful hunting in its ruins. In its torn and uprooted condition, it welcomes us more than it welcomes the wingless."

"Yes! Yes! It is right for us!" several of his listeners cried.

Green Flash lifted a hand. "But wait. If we are to inhabit this region and claim it for our own, we must face the greatest obstacle first."

"What obstacle?" several wingmen asked. "We can fly around the giant." "Who's afraid of a giant?" "There's lots of room." "He'll not blow our wings off the next time." "We'll lay a trap for him."

All their pent-up feelings came rolling forth at once. But Green Flash silenced them.

"The greatest obstacle is not the giant. The greatest obstacle is *ourselves*."

It was a puzzling statement. Green Flash paused. Then—

"Do not forget that we have been living in cages for so long that many of us have been called *mad*. Maybe we *are*. Maybe we have forgotten the things we used to know about flying *together*. And *working together*. And *fighting together*. Maybe some of us *are* mad—*irresponsible—ungovernable*."

Black Cloud was frowning deeply. He was annoyed because several of the flock glanced at him. And there were others, as well, who felt the sting of Green Flash's words. It was Purple Wings who relieved the tension, speaking in her quiet musical voice.

"Tell us what to do, Green Flash, and we will listen to your counsel. We want to work together."

Several of them nodded their approval. Someone asked pointedly, "What about that giant? If you're the leader, Green Flash, what is your order? Do we kill him? Or ignore him? Or run from him?"

Green Flash eyed his questioner and asked, "I have my own answer ready. But first, what is *your* answer?"

"Kill him."

"Why?"

"So the land will be safe." The wingman spread one of his pinions to stress his words. He had lost several feathers from the point of his reddish-black wing. "Now what is *your* answer?"

"I intend," said Green Flash, "to learn *why* the giant is here and what he means to do. *After* I have learned these facts I will know whether he may be our worst enemy or our best friend."

"How are you going to get the facts?"

"By spying on him," said Green Flash. He glanced at the darkening sky. "I shall

go forth at once. Are there two comrades who will come with me?"

Of the several who gestured their willingness, Green Flash saw his two choices at once.

"No, not you, Black Cloud. Your wings aren't equal to it. But your brother I will take. And you, Purple Wings—I need you, too. Are you ready? We'll go at once."

And so the three of them flew low over the land toward the great creature, whose head and shoulders towered among the summer clouds.

## CHAPTER XX

EARLY that night Gret-O-Gret lay down along a smooth stretch of earth where a cool, fresh breeze came up the valley.

"Are you ill?" Paul asked him.

"I need sleep," the giant replied. "I need to breathe more good air."

"We'll keep watch. You sleep until daybreak if you can."

"Waken me at daybreak or I might sleep for many days."

Within a few minutes Gret-O-Gret's slow, deep, rhythmic breathing proved that he had lapsed into a deep sleep. He lay on his belly, with his upper arms folded under his head for a pillow and his lower arms relaxed at his sides. A few times he squirmed for a closer snuggle against the warm earth, his elbows thumping like mountain landslides. Then he slept like dead. The moon rose and shone across his great bare back, its light glinting off the coating of giant hairs making Paul think of a field of wheat.

"I believe he *is* sick," Katherine said. "Do you suppose the excitement was too much for him?"

"It's the thin air. It's not like Mogo air."

"What can we do for him?"

"Let him rest—for two or three days, if possible. There's not much else we *can* do."

"I'm worried. Suppose he'd get down and couldn't get up. Suppose he'd need some medicine."

"He'll have to instruct us. We could never guess how many barrels of aspirin

to pour down his cavernous throat—or castor oil.” Paul smiled as he tried to imagine how big a dose would be needed for a creature who could swallow a space ship or two with no ill effects.

The bed in their car was comfortable enough, but tonight Katherine couldn’t sleep. She kept hearing noises. No doubt all her imagination, Paul thought. Nevertheless he himself didn’t intend to sleep. The skies would bear watching tonight. Wingmen would have little trouble locating Gret-O-Gret if they took a notion to fly over. At least they would be able to see the broad cream-colored surface of his back, if they were seeking a target for bombs.

Katherine roused up, startled.

“Do you hear *that*, Paul?”

“S-s-s-sh! Listen!”

“It’s the space ship. It’s coming back. Can you see it?”

“It’s a different space ship!” Paul declared. Katherine’s sharp ears should have caught that. It was a different hum from that of the afternoon visitor. “The traffic is getting thick around here.”

“You’d better waken Gret.”

“I wish I could radio them. How do we know—Look! They’re heading up the valley!”

“Toward Gret’s space ship. That’s a deadly maneuver. They’ll bomb it first so we’ll have no escape.”

“That wouldn’t be wise,” Paul said. “If they know they’ve got him in the open, they could save the ship for a souvenir. Ugh! Flares!”

Like slowly falling stars, three tiny flares dropped through the distant blackness. The new space ship was evidently searching the camp where Gret-O-Gret had left his Mogo boat and his half-mile box of supplies. If so, its calculations had missed. The flares were falling, Paul guessed, several miles this side of the camp.

The sound of the new invader was entirely lost.

Nevertheless, Paul worked hard at the microphones, trying to warn Gret of the danger.

“Gret! Gret! Gret! Do you hear me?” the amplifier boomed. “It’s a new space

ship. Maybe more wingmen. Do you hear me? They’re looking for you.”

The massive form refused to stir. The slow even breathing continued.

“Save your voice,” Katherine said. “He’s dead to the world.”

Paul drew his pistol. “I hate to do this but I don’t know of any other way to wake him.”

“Careful. You don’t want to hit one of his hearts. Careful—”

PAUL pressed the trigger and the fire flashed at one of the great arms. The hairs caught the blaze and flared up for a moment, then blacked out. The great giant didn’t stir. Another blast from the pistol. He didn’t feel it.

“Don’t, Paul. It’s dangerous. If you *did* wake him up with gunfire, he might not understand.”

“It’s less than a mosquito bite to him. And it’s damned risky letting him sleep—”

“But if he doesn’t move, they may not know. If they’ve never seen a Mogo giant, they could fly right over without ever realizing—”

“You win!” Paul admitted. “I had forgotten—listen!”

No, the space ship could no longer be heard. Only the nearby swishing noises intruded upon the stillness—grasses waving in the soft breeze—or was it the field of giant hairs over the broad cream-colored back?

“Go to sleep,” Paul whispered.

“Not tonight. I still feel as if someone is close by, listening to us. Didn’t you hear something like the flutter of a wing?”

Before Paul could answer, a small space ship sailed over, coasting along soundlessly. Paul caught a glimpse of it against the moon—a model unlike any he had ever seen, with sleek copper lines running the length of the fuselage. It was too late to do anything now. The fates would have their fling this time.

Three flares dropped from the ship as it passed above Gret’s back. It was looking for a place to land. The flares fell two hundred feet and started three fires in the field of hair. A moment later the



small craft switched back and swung in for a landing on the giant's back.

Before it had come to a stop, Paul and Katherine were scrambling up over the giant's side as fast as they could go. They knew the tricks of racing over his warm, hairy hide. A flare of fire threw its glow on the coppery fuselage of the small ship as it rolled to a stop.

"The fires, Paul!" Katherine cried. "Go after them!"

In the awful excitement Paul's only concern was Gret. The landing party, whoever they were, were secondary. The spread of flames must be stopped. Katherine was flaying them with her jacket. Gret was in no condition to endure burns. If he awakened, anything could happen.

"Give us a hand here, you!" Paul yelled. He was aware that two young folks had emerged from the airlocks—a big brawny young pilot and a tall athletic girl. Not wingmen, but humans. Thank goodness for that. Those young folks were good to look at—it had been a long time since Paul had seen any new earthmen's faces. "Give us a hand! These fires have got to be stopped! Use your coat—*hey, what's up?*"

Far from helping put out the fires, the husky young man was approaching Paul with a pistol ready for business. By the flickering fires Paul saw his big hand twitch.

"Drop your damned gun, you boob!" Paul cried. "These fires—"

The fellow struck back with a flint-edged answer. "What's one fire more or less on this earth, *after you've already blasted hell out of it? I'm after you, you damned traitor!*"

## CHAPTER XXI

"PUT that gun away," Paul commanded. "*Do you know where you are?*"

"I said it, didn't I?" the young pilot snapped back. "I'm facing the traitor that sold us out!"

"That's telling him," the girl added defiantly, flourishing a pistol of her own. "He's the man that sold the earth down the Milky Way."

"They're crazy!" Katherine cried.

"Quickly, Paul, tell them where we are."

"We're standing on the back of the Mogo giant! A little more fire and he'll wake up and roll over. I hope your space flivver is insured."

"*The giant!*" the girl screamed. She caught the idea quick for a stranger. "Big Boy! We're on it! What'll we do?"

The big fellow answered with action, and the girl followed suit. Between them, they managed to keep Paul and Katherine covered with one pistol or another while they swung out of their space jackets and converted them into fire fighting equipment. Then all four persons were swinging at the fire in deadly earnest, for one line of blaze was racing along as fast as they could run. It swung halfway around the space flivver before they got it under control. Paul saw plainly enough that the nifty little boat was a proud possession. The husky pilot completely forgot his gun, and Paul found an opportunity to lift it.

As the last blaze was extinguished, Katherine flashed a light.

"We have your pistols, friends," Paul said quietly. "We know how to use them, too, don't you doubt it. No noise, now! The giant is sensitive to noise."

The young pilot and the girl exchanged looks that meant something more than a distress signal, though Paul wasn't sure what. They didn't seem to be scoring each other for their failure. They were rather agreeing to bide their time.

"We could have killed you outright," the girl said, trying hard to ignore her defeat. "You can thank your stars that Big Boy Hurley believes in laws instead of rewards. We'd have had an extra ten thousand if we'd—"

"Quiet, Pantella," her husky friend growled.

"Go right ahead, Pantella," Katherine said sweetly. "It's very entertaining. So someone is offering a reward for us. How sweet. I haven't forgotten how they cheered us when we agreed to try an expedition to Mogo."

The girl took her friend's nudge seriously and said no more. Big Boy Hurley wasn't feeling very talkative, either, but he did ask what Paul expected would hap-

pen to his space flivver.

"You landed it there," Paul said gently, "but I'd hate to see it crushed when Gret-O-Gret rolls over." He turned to Katherine. "Shall we do this young man a favor, dear?"

Katherine took a few steps around George Hurley, studying him.

"He looks *honest*. And obviously he came here to do *us* a favor. Why shouldn't we return *kindness* for *kindness*?"

"Pour on the sarcasm," George Hurley grumbled. "You've got us down. Go ahead and tramp on us. We shouldn't expect mercy from your kind."

"You've got things badly twisted, son," Paul said quietly. He and Katherine moved toward the space flivver, motioning their two prisoners to follow. "We can set you straight if you want the facts."

"We got our facts straight from the fact factory," said Anna Pantella, her eyes flashing triumph.

"Yes, I perceived that," Paul said, "a factory named Garritt Glasgow. His trademark showed up as plain as your face the minute you spoke."

"Are you insulting Pantella's face?" The young pilot acted as if he needed to swing his fists about something in spite of the pistol that was pointed at him. Paul and Katherine stepped through the open airlocks and the other couple were ordered to follow. Hurley took his place obediently at the controls.

"Lift her easy," Paul warned, "or Gret-O-Gret might yawn and knock us down . . . Easy . . . That's it, straight ahead . . . Now, a little to your right, right up the valley. There's an ideal landing spot—a big box about a half mile long."

"You don't say," said Anna Pantella. "White?"

THE moonlight enabled them to land without flares. They stepped out of the flivver, at Paul's suggestion. It was simpler to maintain a firm grip on his prisoners out in the open, and at the same time keep watch on the skies. They sauntered to one corner of the white rectangular surface and sat with their feet dangling over.

"Don't be thinking you might leap down," Paul warned, pointing down into the darkness.

"Don't worry, we won't jump *that* far," the girl said. There it was again; Paul thought—an implication that these strangers knew their way around this camp. There was something mysterious—

"Why don't you push us off and be done with it?" George Hurley said grumpily. "From what I've heard of your methods, here's your dish."

Paul allowed him to talk long enough to get some of the venom out of his system. While he and the girl aired their grievances, Katherine passed some sandwiches which she had picked up in their ship.

Anna turned the gesture into an ulterior motive. "All this kindness—umh! You think you'll buy leniency when you face the court?"

"Court? *What* court?"

"Never mind. You've got the drop on us now, so you don't feel worried. But just wait."

"Do have another sandwich," Katherine said.

"Thank you, chum. I'll recommend gas instead of hanging."

"Listen to us," Paul said. "So far it's our word against Garritt Glasgow's. You must have bumped into him, somehow, and you've swallowed his fantastic line, hook and sinker. But suppose, Hurley, that I could show you some movies of our approach to Mogo land. If you saw the fate of the other ship—how death struck it from an unearthly source—would you be willing to exchange your 'facts' for the *real* facts?"

George Hurley seemed to be staring hard at him through the moonlight. "I knew Judy Longworth," he said. "What 'unearthly' cause would the pictures show?"

"A Mogo giant. A giant like the one we walked over a little while ago. He thought the ship was some sort of insect. He caught it and tried to eat it. He crushed it in his teeth. Then he threw the ruins in the river. That's how death struck down half of my proud expedition in one quick blow. We have the movies in

Gret-O-Gret's space boat. He saved all the equipment he could salvage from my own ship, including these films."

Paul's listeners were at last visibly impressed. But not necessarily convinced.

"If that's the sort of killers the Mogo-giants are," Hurley finally said, "why do you associate with them?"

Katherine answered that one with a question: "Are all earth people alike, Mr. Hurley?"

"Certainly not."

"Are some good and some bad?"

"Of course."

"Some thoughtful and some careless?"

"Yes."

"Some intelligent and some ignorant?"

"Naturally, but—"

"That's how it is with the Mogo giants," Paul interpolated. "By the way, did you ever go fishing, Hurley?"

"Many times."

"If you were in midstream and a fish swam into your hands, and you were hungry, you'd probably grab it and reach for the frying pan, wouldn't you?"

"Probably."

"If it happened to be an extraordinary fish—some new variety—say, an unusually *intelligent* fish—you'd have to be quick in the trigger if you gave it a break."

"I don't get you."

"THAT'S how quick Gret-O-Gret was. He might have destroyed our ship for an insect, the way the other giant did with the other ship. But Gret is good. He's wise. He's quick. Quick enough to hold back the hand of death that might have crushed our lives out as easily as we step on an ant. That's why three of us out of the original ten are still alive."

The silence lasted for a brief moment. George Hurley was hearing everything and weighing it carefully.

"That leaves two unaccounted for. The other two in your ship. What happened to them?"

"Glasgow murdered them."

"Glasgow?"

"In cold blood. He was working a one-man campaign to steal the expedition out of my hands."

"I hope you will believe my husband," Katherine said. "Paul, can't we return their guns to them?"

Paul handed Anna Pantella her pistol. She murmured a thanks. When he offered George his, the pilot shook his head.

"Not just yet—I mean, I don't want the responsibility for bringing you *in*, not till I've had time to think."

"Bringing us in?"

"You see, it's already pretty complicated. We've got an earth committee that's getting things started, and two of the first jobs are, to bring you to trial—"

"This *is* complicated," Katherine gasped.

"And to kill the giant that blasted the earth."

"We *know* who did it," Katherine blurted. "It was *not* Gret-O-Gret."

"Another giant?"

"Yes."

"Is the other giant here?"

"Not now," said Paul. "It was a hit-and-run job. He's back at Mogo."

George shook his head dubiously. "Since a Mogo giant did it, the committee will be ready to kill any Mogo giant they see."

"That's bad thinking, Hurley," said Paul. "I hope *you* don't think that way. That kind of talk is responsible for all kinds of class prejudice. That kind of talk—"

"Paul!" Katherine's voice held a note of alarm. "Paul, I keep *hearing things*."

"Take it easy," Paul said. Then by way of explanation he told George and Anna about the shipload of wingmen who had arrived that afternoon for an attack on the giant. His listeners inquired quickly about the results.

"The results," Paul said, "were three-fold. One—the wingmen dropped their bombs on nothing and were chased away. Two—Gret was exhausted and sick. And three—my wife keeps hearing wings rustle wherever we go."

"I thought I heard it," Anna said. "But it could have been the fluttering in my stomach from these good sandwiches I made and had given to me."

Paul wanted to drive his former point home, for he saw now that there must be

a plan afoot to murder Gret-O-Gret at once.

"Let me repeat, it's *unfair* to hold a prejudice against *all* because of what *one* does. That goes for men of *any class*. And it goes for giants, too."

A strange voice sounded up from the darkness along the wall of the box. "*Does it go for wingmen?*"

"*Eavesdroppers!*" Katherine cried. She switched on the light and shot it down the wall.

*Flap! Flap! Flap!* There was no question about the noise this time. The beam showed quick glimpses of three wingmen—two husky fighters and a purple winged female—racing off into the night's blackness.

"Spies!" Paul muttered. "Now I wonder. What did we say that they might understand?"

"I'd better have my gun, if you don't mind," George Hurley said enigmatically.

## CHAPTER XXII

GRET-O-GRET was a sick giant. The bright sunrise awakened him and he started to rouse up, only to discover that he was too ill. He looked around for the Kellers. He saw their car and decided that they were still sleeping. He hoped he could avoid letting them know he was sick. They were weighed down with enough troubles already.

Gret turned over on his side so he could look up the valley. Although he couldn't see over the purple misted hills, he knew the approximate distance back to his ship.

"I shall go home," he said to himself. "Then the Kellers won't have me to worry about."

He had become a source of embarrassment to them, he was sure. And his own existence here had grown steadily more painful. Disappointments. Climate. Breathing difficulties. Sickness. And now—hatreds and even bombs.

"Back on my own planet I was always respected. I was considered an upright, intelligent citizen. But here—what am I except a monstrosity? I don't fit. I am considered a dangerous *beast*."

His thoughts naturally turned with bitterness to Mox-O-Mox. He raised up on two elbows and looked up into the white sky. If it had not been for Mox's evil deed, would he, Gret, then be a welcome guest? Would his box of foods and supplies then have been accepted by earth people as gifts from Mogo?

Ah, silly dream. Only a few like Paul and Katherine would have trusted him. But they were people of exceptional understanding. If the earth's vast populations had lived, they would have feared and hated him. Even if Mox hadn't done the atrocious deed, the earth would not have had room for a giant like himself.

"Small creatures," he concluded gloomily, "would have an instinctive distrust of me because I am so large."

So saying, he decided that he would cut his earth visit short. For even such friends as the Kellers, who had been willing to spend hours and hours acquainting him with their ways, the relationship was hardly a profitable one. Communicating was painfully cumbersome.

What perverse inspiration had ever made him believe that he might *own* this planet?

"I shall keep *legal* possession of the earth in the eyes of the Mogo laws," he decided. "In this way I'll have a right to protect it from such destroyers as Mox. But I can never hope to *own* it, in the eyes of these proud, belligerent little people."

The irony of it all weighed upon his spirits. That he should be so large and at the same time so useless was dismaying.

"I will go home at once!" He spoke much too loud. The rocks on the hillside quivered.

If the Kellers heard his spontaneous burst of thunder, they managed to sleep on. He mustn't tell them his decision. He must simply get into his ship and go.

But what of the distance back to the ship? Could he make it? How?

He tried again to rise and walk. His energies simply were not equal to the occasion. He was alarmed.

"Paul! . . . Katherine! . . . Where are you?"

No answer.

"Paul?" He tried to remember when

he had seen them last.

"Oh, yes, the wingmen . . . Bombs and feathers and a sudden retreat to the hills."

HE TURNED his eyes toward the distant cliff but saw no signs of activity. He recalled that Paul and Katherine tried frantically to help him when they thought he was in danger. Poor little people—so completely lost in their ruined world—holding fast to his friendship, under difficulties. If he could only be of service to them—but no, his very presence here was adding to their troubles.

"I will go back to Mogo," he repeated softly, "as soon as I am able."

He moaned uneasily and snuggled closer to the warm earth. The sun and the breezes played kindly over his back. He thought of Faz-O-Faz, the lazy youth, who would spend his hours lying in the warm dust beneath the three suns of Mogo. Such indolence—and such a delightful, carefree existence!

"I must be homesick," Gret-O-Gret murmured, and fell fast asleep.

## CHAPTER XXIII

GREEN FLASH was a wingman of great restraint. On the previous evening he had led a spying expedition and it had been highly successful—yes, it had been perfect—until the brother of Black Cloud made that dreadful break!

Green Flash wanted to smash his face smack against the wall of the box. His claw-like fists had barely stopped in time. The restraint was painful.

Flap! Flap! Flap! The three of them flew off into the thick darkness, but not before the flashlight beam had swept over them. Humiliating, and so unnecessary.

"A purple one! And that green fellow! And another—"

It was the voice of the one they called Katherine. She had caught them in the act, all right. Green Flash knew how earth people detested wingmen who spied. With every flap of his wings Green Flash fully expected pistol fire. He kept Purple Wings ahead of him, but he feared he would have been little protection if the atomic blaze

had streaked out at them.

Now they were away and could afford to stop behind a bulwark of rocks and catch their breath.

"Why did you *do* it?" Purple Wings cried. "Everything was going beautifully until you blurted."

The brother of Black Cloud had doubtless been making up answers for such a question. He did it at a risk, of course. But let them have it. The next time they talked about tolerance and fair play they would remember his words.

"They'll remember being startled," Green Flash said. "And have one more reason to hate us."

Thrown on the defensive, the wingman whimpered that Green Flash and Purple Wings were picking on him because they hated his brother.

"Stop it!" Green Flash snapped. "Come on. You're going back to camp and tell them exactly what happened. It's all yours. I'll keep my voice out of it. Make out a good story for yourself if you want your brother to like it."

"Where are *you* going?"

"Back to the white box," said Green Flash. "I want to get the rest of that conversation."

Purple Wings declared she would come, too. And the black-winged brother refused to go back to camp alone. So they all three flew back and circled the box. But the conversations had been taken into the space flivver by this time, and the airlocks closed. Eavesdropping was over for tonight.

"All right, back to camp," Green Flash agreed. "Anyway, we've got a line on this fellow Keller and his trouble."

"Did George and Anna believe his story?" Purple Wings asked.

"What do you think?"

"I think they're in a quandary."

"I think," said the black-winged brother, "that George is playing sly while he waits for a chance to murder Keller. He's not going back and face his committee with a bad record."

Green Flash smiled to himself, knowing that someone else was worried about returning to face his flock with a bad rec-

ord. Purple Wings must have caught it, too, for she flew close to Green Flash and touched his hand. He closed his fingers over hers and knew that it was good to be flying through the earth's air, with the earth's moon beaming down, and a pretty female with flowing dark hair flying beside him.

The dawn aroused the flock and they gathered around to listen to the report. Black Cloud limped up, last of all, favoring his injured wing. He watched them with a jealous eye as they recounted their adventure. To his brother's narrative he made one brief comment.

"It's a wonder they didn't singe your feathers till your backbone showed."

The meeting ended with a short, pointed speech by Green Flash.

"We'll have to be patient, comrades. If any of you prefer to live on Venus, it's up to you to watch your chances. Maybe you can stow away on some cargo ship. But you do it at your own risk. My advice is that all of us make our homes here on the earth. There's plenty of room, and plenty of resources. The sooner we can feel settled, the better."

"What's the answer on the giant?" someone asked. "Is he friend or foe?"

"We were tricked into attacking him by someone we have no reason to respect. I've yet to see any reason to make a foe of the giant," Green Flash said. "But I'll give you a rule. You can try it on him, and you can try it on any group of people you're in doubt about. *Put them to a test by doing them a favor.* A favor extended to strangers is always a test. It shows you're willing to play fair and be a friend. What *they* are will show up soon."

LATER that day Green Flash and Purple Wings watched the giant and knew that he was sick. He tried to rise up, but the most he could do was to come up on his elbows. Most of the day he spent sleeping on his belly. The warm sun blazed down on his back, revealing a few small patches where the hair had burned off.

They soared high above him. A few other wingmen joined them. Occasionally

his huge purple and orange eyes looked up and must have seen them, but he made no gesture of attack or defense.

"He should have a drink of water," Green Flash mentioned. "He must be very thirsty. Can any of you think of a way to bring him water—*enough* water to wet his lips?"

No one found an answer. It wasn't going to be easy to do a favor for such a huge creature, no matter how much they might wish to be friends. And, as Green Flash knew, the wish was not too wholehearted. A few wingmen were going to be nursing stripped wings for many days to come. Among them was Black Cloud, sullen and bitter.

"All this favor business is thinner than ether," Black Cloud was telling a small crowd of winged soreheads that evening when Green Flash came back to camp. "Do you think that damned walking mountain is going to forget we tossed bombs at him? About as quick as I'll forget the way he blew my head off."

Green Flash walked into the circle angrily. "Why didn't you listen to me on the ship, Black Cloud? I warned you not to do other people's murders."

"Nobody can listen all the time," Black Cloud retorted, making a scornful mouth. "You're always blowing. You must be related to the giant."

Green Flash walked up close enough to breathe in Black Cloud's face.

"Stop your trouble-making. We've got too much to do. We've got to work together."

"Shut your teeth before I smash you."

"You're in no shape to do it, Black Cloud."

"You think not?" Black Cloud slammed out with a fist that barely grazed Green's jaw.

The breathless *wooo!* came from the ring of winged spectators. Green Flash walked into Cloud, his hands up in a gesture of restraint until Cloud's fist flew out again. That one caught Green on the cheekbone and rocked his wings. The crowd, suddenly breathless, slid back to make room. The look in Green Flash's eye said there was about to be a fight. Green Flash

walked in fast and this time his fists were streaking. Quick thumps sounded from Black Cloud's jaw and midsection. The blow that did it was never seen. Black Cloud quietly collapsed.

"Enough," he moaned, barely raising a hand as he sank. Green Flash caught him in time to prevent his falling on his bad wing.

"You'll stop your trouble-making," Green Flash said through his teeth.

"I've stopped . . . already."

## CHAPTER XXIV

THERE were three persons aboard George Hurley's space flivver that morning when it swung up toward the pink clouds just before daybreak.

George was at the controls. The previous night's conversations were still echoing in his ears. He wondered whether any of the wingmen who had been eavesdropping there in the darkness alongside the great white box had recognized him. Probably not. Most of the time he and his party had been in darkness. So it was just a question whether the wingmen had recognized his voice from his one previous encounter with them—the fracas that occurred in the doorway of the "Wingman Hospital," on Venus. Just in time. That brief tussle had left him with a healthy respect for all muscular two-legged creatures with wings.

His ship was now bound for Banrab. He would report to the committee, and to Glasgow if the latter had arrived.

George wasn't too happy about the prospect. Neither was Anna. She kept dabbing make-up on her face, trying not to look worried.

The hop could have been made in an hour or so, even at the comparatively slow cruising speed of air travel along the planet's surface. But George preferred to take the long way around. He and Anna needed to talk. As an excuse they mentioned to their one passenger that she undoubtedly wanted to see some more of the ruined earth, so they would do a bit of zig-zagging over the continents.

"That's very courteous of you," Katharine Keller said. "Believe me, Paul and

I are terribly shocked over what has happened."

George writhed uncomfortably. He felt beaten because he had not brought Paul Keller along. He was going to have to talk fast when he faced Glasgow again. To all appearances he had let his man get away.

"This is going to look bad, Pantella," he said, as soon as the two of them had a chance to talk alone. Their passenger had gone to the window aft, for a sky view of the passing scenes.

"Glasgow probably thinks you've already shot him."

"And he probably thinks that the wingmen have erased the giant by this time."

"Yeah," Anna gave a low laugh. "Big Shot Glasgow is going to need soothing syrup. He'll probably blow a fuse."

"I can't decide," said George, "whether to make up one big lie to tell him, or try to get by on several little ones."

"It'll have to be good. And it's a cinch the truth isn't good."

"But Katherine Keller won't be tongue-tied. He'll go after her to check our story."

It was a dismal prospect. The four of them had carried on a discussion most of the night, and Paul Keller and his wife had done some fast talking.

"If only we knew whether we can believe any part of their story—"

"That's the trouble. We don't dare," said George. "I know it sounds good. But all we've got to go on is Glasgow's orders. We were sent to bring the culprit in—"

"Or kill him—for a sweet bonus."

"And instead of doing either, we return with his wife and a bright promise that he'll be available later. We *had* him."

"And let him walk out on us."

"Because of an emergency. He had to look after a sick friend."

"That sounds beautiful," Anna said sarcastically. "Wait till we tell him the sick friend was the giant that they want to see dead. We're going to look like a pair of saps, Big Boy."

George groaned. "I'm the sap. You can keep out of it."

"Haw!" said Anna. "If I let a guy like you down when you're in trouble, what a sap I'd be."

There was one streak of light that shone through their fog of the blues. Both Paul Keller and Katherine had insisted that they would welcome a trial or an investigation of any sort. They were eager for it. They wouldn't feel comfortable until they had it.

"All we ask," Paul Keller had said during their talk, "is a fair chance to present our own story. Give us any right thinking judge and we have nothing to fear."

WITH those words, Keller had almost convinced George. If the flivver could have taken off at once, with the four of them, neither George nor Anna would have had much reason to fear them. Guilty or innocent, they would have been brought back to headquarters without handcuffs or gun wounds. And George would have appeared in the light of a successful sky cop. The rest would have been up to Judge Lagnese.

But just before the take-off, Paul had pulled a fast one. "Sorry, folks. I can't go now—not until I can get Gret-O-Gret back on his feet. You go with them, Katherine, as a sort of hostage, so they'll know I'm not trying to get away. They'll give you good taxi service, Katherine. I'm sure you won't have to use this pistol . . ."

The firearms as well as the arguments had all found their way into the hands of the Kellers. As soon as Paul had made his exit, carrying a rope ladder for descending from the box top, Katherine had ordered the airlocks closed. And so George and Anna, both trying to appear completely confident, accepted these swift maneuvers as kindly suggestions, and did as they were told.

"Banrab, here we come," George called into the speaking tube.

Katherine Keller came forward, and the three of them watched the dark scorched mountains rise up around them as they descended into the low, grassy landing place. Katherine gave a sigh of relief. "At last, a stretch of land that missed the blast."

Her words sounded genuine enough, George thought. If she had been in league with her husband to sell the earth "down the Milky Way" she was certainly an expert actress.

Anna gazed with starry-eyed wistfulness at the valley that had been her home. "I guess I was the one lucky person in the world when it happened. I'll never know why it missed me. It got everybody else."

"Were all of your family lost?" Katherine asked.

"All except one brother in Venus. If it hadn't been for him I just wouldn't have had anything to live for."

"Is that so?" George said not too pleasantly, and then wondered why he had said it.

## CHAPTER XXV

THE Banrab settlement had changed during George's absence. Mamma Mountain and Papa Mouse, the billionaire Waterfield, and the others who had stayed to maintain man's official claim on the earth, had taken to the caves in the mountainside.

"We're playing caveman," Mamma Mountain said cheerily as she greeted George and his party. "I always said that man would return to his caves sooner or later. But not Papa Mouse. He'll return to the trees."

Papa Mouse, looking comical in shorts and a suntan, immediately acted on Mamma's suggestion, grabbing her arm and climbing to her shoulder, chattering like a chimp.

"Is this the Banrab camp?" Katherine asked, obviously disappointed. She sniffed at the dank air at the cavern entrance.

"This is it and we hope you like it," Mamma said. "We're the only stronghold of civilization on the earth. As soon as the Venus Express comes again we're going to have electric lights. In the meantime we have circuses—I mean Papa and me. Oh, we're getting along and we're making wonderful plans."

As she led them in, Mamma Mountain talked in her big enthusiastic voice about how the committee was going to start the new earth right and see that only right thinking people—no criminals or morons—would ever be admitted. Then she turned, aware that she had been doing all the talking. George and Anna hadn't had



a chance to make introductions.

"And who might *you* be?"

Katherine gave a faint smile. "I am Katherine Keller, the wife of Paul Keller, the explorer."

"Oh, *my*! Oh, my stars!" Mamma Mountain gulped. "You're—you're—"

"I've recently returned from a long and tragic space trip," Katherine said. "A friendly giant brought us back."

"Gi—giant!" Mamma was all out of breath. She tottered and reached out to the wall of the cave for support. "Y-yes, we've heard. We—I—"

"I understand that my husband and I may be questioned—"

But Mamma Mountain, three hundred pounds of nervousness, retreated into the darkness of the cave. Little Papa Mouse, his eyebrows jumping, turned and chased after her.

Other members of the cave settlement were equally surprised to find themselves face to face with the wife of Paul Keller, though they were less demonstrative. George felt the weight of the situation as it gathered. Whispers. Strained silences. Oblique glances at the newcomer when there were references to the awfulness of the earth's explosion. Frank admission of a general fear of the giant.

"We think this Banrab camp is a fair hiding place," Mr. Waterfield said during the jerky dinner conversation. "We wouldn't like for the giant to find out where we are."

It was a straight statement of fact. The fifty-five year old billionaire was a solid person, friendly and fair. His deep eyes gleamed with confidence and purpose, and he dared to look straight at Katherine Keller as he spoke. He kept looking at her a little too long, George thought. Was he accusing her? No, but he might be warning her, perhaps.

Or was he somehow fascinated by her?

Katherine had dressed in a neat-fitting green suit that someone had lent her, and had done her hair expertly, so that one had to admit that she was a keen-looking woman. Sometimes she seemed a trifle amused by all the touchy suspicion that surrounded her. Good acting again, thought George.

THE very fact that she had seen worlds of space that no other person present had seen tended to put a damper on all conversations, even though the talk didn't concern her. Several topics were introduced by Mr. Waterfield and others, only to fall flat.

George missed nothing. He could tell that plans had developed swiftly during his absence. There had evidently been enthusiastic discussions of eugenics programs. What sort of physical specimens the new earth should have was to be a matter of conscious policy.

However, the eugenics talk had struck a snag.

"Mamma Mountain and Papa Mouse tried to joke us out of it," someone told George on the side. "Mamma claimed that it took more than good physical specimens to take the gaff. And Papa reminded us that last week we'd all have tossed up the sponge and quit if it hadn't been for Mamma's three-hundred-pound sense of humor."

"They're valuable people," George agreed. "I hope their feelings weren't hurt."

"No. But Papa Mouse said he was going to biff the next person who said the new earth should be open to athletes only."

The Venus express arrived at noon the next day and brought a load of surprises. More than three dozen earth persons, male and female, had come to cast their lots with the new earth. Before they had trailed up the path from the ship to the cliff road, word reached the caves that these were recruits which Garritt Glasgow and Judge Lagnese had won at the Venus capital.

"*Back to the earth!*" some of the girls were shouting, and one of them said, "My parents always told me if I got tired of Venus I knew where I could go." And another cried, "Hey, where's the hotel? What did someone say about all the modern conveniences?"

They were a noisy, raucous, heterogeneous lot, George observed. Would the Committee be willing to receive all of them? He trotted down the path to

help the men with the luggage. Anna was there, directing them toward the rocky road that had recently been cut in the side of the cliff to give entrance to the largest cave.

"Don't expect too much, girls," she said. "We've gone primitive with a vengeance."

"I hear you have giants," someone hooted.

"The best," said Anna. "A mile tall and quick on their feet."

"I'll believe it when I see it."

Judge Lagnese and Garritt Glasgow were among the last to step down from the ship. George saw that they were quarrelling violently. He lost himself in the chaos of unloading baggage and supplies, and slipped by them unnoticed. He had better postpone his bout with Glasgow until the conditions were as favorable as possible.

Six porters were attending Glasgow and his luggage. Porters in black uniforms with red braid. In addition there was a youngish bodyguard in plain clothes—a man with high shoulders and a square head that was mostly jaw. He carried himself like an athlete looking for a prize fight. George heard Glasgow tell him to "hurry up, Poppendorf" and to get up the trail to find some choice accommodations in the caves.

"And watch those porters so they don't cart the luggage too close to the cliff. Have them set up the power plant right away . . ."

George was fascinated. Garritt Glasgow was really putting on the dog. He might have been a king from the way he was acting. Whatever Judge Lagnese had been quarrelling with him about had evidently become unimportant. In spite of the primitive setting and all of the undignified hustle and bustle, Glasgow was making his own carefully planned entrance. Consciously or otherwise, everyone was being impressed. Uniforms. Noise. Swagger. Loads of rich looking baggage piled everywhere.

"Oh-oh," George said to himself softly. "There's going to be a collision on the cliff."

A COLLISION of personalities, he meant. For he saw a good-looking woman in a green suit sauntering out of the main cave and he knew it must be Katherine Keller.

He hurried up the trail, a few yards behind the group of newcomers who were following in the wake of Glasgow. He couldn't help recalling the last time he had seen Katherine Keller and Glasgow within a stone's throw of each other. In Gret-O-Gret's great Mogo boat. Katherine and her husband had been conversing with the giant. Glasgow had been a prisoner in a cage on the shelf.

Now they were coming together, neither being aware of it.

They were only a few feet apart when their eyes met. George saw the fire of defiance light Katherine's eyes. She stopped, almost rigid, with a slight upward toss of her head. The newcomers surrounding Glasgow evidently didn't know her. But there was Mamma Mountain nearby, who kept a suspicious eye on her.

Glasgow dropped a small bag he was carrying and made a quick motion as if to reach for a pistol. He instantly changed the gesture, put his hand to his waist, and bowed.

"Mrs. Keller, I believe!"

She nodded and George thought he saw a hint of a smile at her lips.

"You dropped your brief case, Mr. Glasgow."

Glasgow ignored the case, which someone promptly picked up and handed to him.

"It's a small world, isn't it, Katherine?" Glasgow said. His bird-like face twitched as he forced a smile. "And where is your husband? Here, I hope."

"You *hope*? Why? Are you in the mood to renew old acquaintances?"

"You're too kind, Katherine. Paul is alive, I trust?"

"You *hope*, I'm sure."

They were fighting a subtle battle all their own, as everyone around them began to realize. George felt that Glasgow was deriving some deep secret pleasure from finding her here, even though she was

cleverly parrying his questions. It was Mamma Mountain who broke the deadlock.

"She left her husband with the giant, Mr. Glasgow." The big lady beamed with pleasure over her chance to be helpful to so important a man as Mr. Glasgow.

"So Paul Keller hasn't been delivered!"

The little man's voice scraped with annoyance. He was looking around, now, addressing his remarks to the small crowd around him. George chilled. That annoyance was meant for him, though he hadn't been discovered as yet.

"All right, someone has failed to carry out an order," Glasgow said. "For the sake of Mrs. Keller and all of us, I'll have that man brought in." His edged voice moderated as he turned to Katherine again. "*You understand, don't you, Mrs. Keller?*"

George swallowed hard. Was there so much friendship between these two? It hadn't been evident that time Glasgow had been rescued from the shelf of the giant's boat. But it seemed that he would hardly dare say such a thing if he weren't sure that Keller was the guilty one, and that Katherine knew it, and was willing to let him hang for it.

Katherine's answer offered no clue to the puzzle of their relationship. "I understand everything, Mr. Glasgow," she said coldly.

"Where are my porters? Where's the captain? We'll borrow the Venus Express. I'll tend to this myself—with your permission." Glasgow made another gracious gesture toward Katherine. From her look it must have been mockery.

"You will find that my husband is ready and willing to come before this group," her words were measured, "as soon as it is possible for him to come."

Glasgow cut in quickly. "I'll get him. Someone failed me. The Venus Express—where's the captain?"

JUDGE LAGNESE, his face beet-red, had kept silent as long as he could. He now dropped his suitcases and pushed up from the edge of the crowd. His sharp goatee jutted forward.

"We realize the importance of this errand, Mr. Glasgow. But it's not important enough to tie up the Venus Express. The first essential is to get more people and equipment and start building."

"While there's a destroyer loose in the land?"

"Yes. It's a big land. You might send dozens of ships out and never find your man. You've already sent one—"

George had hung back in the silence of guilt as long as he could stand it. He pushed forward just as someone said, "If you mean that copper flivver, it's *back*."

"Then we ought to have a report. I sent George Hurley—from Venus—*Well!*"

George walked into the bombastic little man's presence, awkward and tongue-tied, but terribly determined to put the record straight.

"*Well!*" Glasgow repeated.

"I'll give you your report."

"Well, yes, I rather think you will. A little slow about it, aren't you?"

"I'll give it to you in private," George said. He'd do his damndest to play it square, but he couldn't blurt out the whole story in front of this crowd. He couldn't tell them how Paul Keller had slipped through his fingers. Glasgow was crowding him with an arrogance that got into his flesh. He saw Anna across from him biting her lips. "Don't tell it now," she seemed to be saying.

"Let's have it, Hurley!" Glasgow snapped. "What's your alibi? What are you skulking about?"

"I'll give it to you later."

"Give it to me now."

"Later."

"*Give it to me now!*"

"Give it to him," Anna said sharply.

Then George's hand flew out accidentally and slapped Garritt Glasgow across the cheek. The little man tottered and spun, and someone caught him and set him back on his feet.

## CHAPTER XXVI

"DAMN it, I didn't mean to do it. It just happened." George looked from one to the other of the two black-uni-

formed porters who had seized his arms. He looked to Judge Lagnese, purple faced, moustaches twitching. All eyes were on him.

Anna drawled, "*He asked for it.*"

Again he thought Katherine Keller was smiling within her smooth mask.

They had picked up Garritt Glasgow's hat and offered it to him. He was still rubbing his cheek.

"I don't know what is back of this," he said, his fury barely under control, "but it looks very suspicious for one Mr. Hurley—and others." His eyes turned on Anna. Then turning back to the crowd, "Go ahead and get yourselves settled. Set up the power plant and establish some kind of quarters. I'll get the Venus Express—"

"The Committee should have something to say about that." Judge Lagnese was blurring.

"I'll check with the captain," said Glasgow. "The Committee has enough to do already. Where's Waterfield?"

The billionaire moved out from the cave entrance, where he had been standing, taking in the show.

"Waterfield, what have you and the others done about your regulations for grading and sorting people who come in from other planets?"

"We have had some discussions," Waterfield began.

"Discussions? What have you done? Nothing?—Just as I thought. There you are. The Committee can devote its hours to bumbling over the rules and regulations. But you can consider me appointed to handle the jobs that call for action."

"Who appointed you?" George Hurley growled.

"Will you porters take that mad ape around the cliff and let him sit on a rock till he cools off?"

"I want to know, too," Judge Lagnese barked. "Who appointed you?"

Glasgow flung a hand out as if his feelings had been outraged beyond endurance. He pointed a finger of dramatic scorn at the Judge.

"Somewhere in this land are a giant and a human traitor. If ever two more

dangerous things existed, I can't name them. Their destruction is all around us. And yet when I, out of my own sense of altruism, undertake to rid you of this deadliest menace, what happens? Our honored judge tries to bind my hands with red tape. And all the while, this menace hangs over you—"

"Pardon me, Mr. Glasgow."

The captain of the Venus Express walked through the group. George sensed something foreboding in his manner. He stopped beside Glasgow and turned to the others.

"I have some news for all of you," the captain said. He drew a deep breath. "This word reached me just as we were leaving Venus. I didn't tell you at once because I feared that some of you might want to turn back. You're as safe here as anywhere—"

"Safe?" Judge Lagnese blurted. "What are you driving at?"

"You're here—on the earth—in your caves. And that's a good place to be these days."

"Out with it," Glasgow snarled. "What's happened?"

The captain's lips were tight. "The planet Mercury has been blasted—the same as the earth was blasted."

## CHAPTER XXVII

GEORGE would never be able to remember exactly what happened next. A panic seized the whole group. Hardly anyone was immune. The instinct of self-preservation came to the fore in everyone.

*Am I safe? Are my loved ones safe? My friends? Which of us will be struck next? Run! Run! Run to a safer cave! Get into a ship and fly! Fly anywhere! In flight we're safe. Planets are doomed. Can't somebody do something?*

Along with such terror-stricken thoughts, the different members of the group behaved erratically. The so-called mad wingmen had nothing on them when it came to unaccountable actions. George remembered that someone climbed the half-demolished trunk of a tree and began watching the skies through binoculars. A

coarse-voiced, hard-boiled girl, learning that Paul Keller's wife was among those present, and that her husband was being accused of starting the trouble, wanted to go after Katherine and tear her hair out. This might have turned into something very ugly if Mamma Mountain hadn't suddenly had a change of heart and decided to protect Katherine with her own brawny arms.

One person cried to the crowd to run for the Venus Express. One started digging into the mountainside with an ax—George wasn't sure why, unless it was to make a private cave for himself. Someone wandered around over the cliff road in such a dazed condition that he almost toppled off at a point where he would have fallen a hundred feet onto the rocks.

The most persistent wail was, "Venus will be next." Since most of the newcomers had families or friends in Venus, this prospect became the terror of terrors. They remarked again and again upon the thoroughness of the earth's destruction.

"There won't be a living soul left on Venus," one of the girls cried. "That worthless, no-good husband of mine will get it right along with the rest. The poor guy."

"Stop your blubbering," Anna said. "Venus may never be touched. It may stand safe for a million years."

The girl stopped her crying long enough to say belligerently, "I don't care. I'll never go back to my no-good husband!"

George's own emotions were, first of all, a momentary elation, then a feeling of fearful excitement, as if a new adventure was about to be forced on him.

"It looks as if Gret-O-Gret didn't do it, and I'm glad."

"Don't be too optimistic, Big Boy," Anna retorted. "Remember, Glasgow's story was that some friend or relative of Gret-O-Gret did the dirty work. Gret and Paul Keller sailed in to take possession *after* it happened."

George reached for a wisp of an idea. "Then if this is the same deal, they'll be planning to walk in on Mercury and take possession there, too."

"Could be," said Anna. "Not that they can be everywhere at once."

"I mean, if this is Keller's scheme, he'll at least have some advance knowledge of the Mercury destruction."

"It sounds reasonable. Tell me more."

"All right. I'm going to him. Now. If he and the giant are still in the same camp, basking in the sunshine, without any knowledge of Mercury, it's a good sign they're innocent all around."

Anna patted him on the shoulder. "There's a genius among your great-grand-fathers, Big Boy. Just be sure you don't try too hard to prove a guilty man innocent."

"Do *you* think Keller's guilty?"

"I don't know," said Anna. "If he is, I sure admire the smooth way he can lie. But if he is innocent—umh!"

"If he is, I'm not going to give Garritt Glasgow the satisfaction of proving him guilty. I'm not that anxious to make a Big Shot out of Glasgow."

ANNA raised an eyebrow. "You two *aren't* hitting it off too well, are you? Do you think you can square yourself with him after putting your trademark on his cheek this noon?"

George shook his head. It would take time and care to cover that break.

"Not that I wasn't right with you," Anna added. "My brother from Venus would have done what you did, only sooner."

They reached George's space flivver. One of the porters saw them getting in. He called to the high-shouldered bodyguard named Poppendorf, who came running down to the flat, demanding to know whether they had checked their plans with Glasgow.

They swished the airlocks closed against his voice. George touched the throttle.

"The earth's getting crowded already," Anna observed.

"When a man can't fly off in his own space flivver, something's gone wrong with old-time American independence."

"Or new-time Banrab liberty," Anna added.

They charged off into the stratosphere so

fast that Poppendorf, trying to wave them down, might have been an overgrown butterfly riding away from them on a tornado.

A few minutes later they landed on the top of the white box—a somewhat changed landing place, however. There was a break—in the southwest corner of the smooth half-mile surface. Paul Keller and at least a dozen winged assistants were there, doing their best to hoist something out of the mammoth container. Anna and George stepped down and crossed toward the corner cautiously.

"Come give us a hand, Hurley," Paul sang out. "We need a big man like you."

George wasn't too sure of his grounds. He was haunted by the thought that he might bump into the same wingman he had once tackled in the doorway.

"We want to talk with you, Keller," he called back.

"We're pretty busy," Paul said, walking over to them. "We're trying to get some medicine out for Gret-O-Gret. He told us where—"

"Any great hurry about it?"

"The giant is sick. He hasn't been on his feet for hours. He needs a stimulant."

"Where's he going when he gets on his feet again?" George was creeping up on the problem.

"Where? He'll come back to his ship, I guess. He talks a little of striking out for home."

"Umh. He wouldn't be stopping at any of the other planets, would he?"

"Why should he?"

Keller got it off well, George thought. Yes, he was evading. That probably meant that Keller and Gret *did* know. Or did they? George gave the wink to Anna and they turned and started back to the space flivver. George threw back a remark.

"We'll see you on Mercury soon."

Keller was frowning at them. "Mercury, did you say?"

"Mercury."

"Well, you won't see us there."

"You're not passing it up, are you? After all, the deed is already done."

"The deed? What are you talking about?" Keller growled, following them back to the airlocks. "I don't understand."

"Maybe it's too hot for you on Mercury just now. Still, you got *here* quick enough."

"One side of Mercury is always cool," said Keller. He was plainly wondering whether his comment was appropriate. Evidently he was still in the dark.

"Tell him," said Anna.

"Okay, Keller. Mercury has been bombed. It's had the hell blasted out of it, the same as the earth."

Keller gave a low whistle.

"How do you whistle when you're really surprised?" Anna asked.

But Paul Keller didn't hear her. The news rocked him.

"That's bad . . . bad . . . Umh, that's bad . . . Does Katherine know?"

"That does it," Anna whispered to George. "There's no fake about him."

Paul Keller straightened with sudden decision.

"Help us with this medicine. We've got to get Gret-O-Gret up and into his boat. He's the only one who can stop this damnable thing. It may be too much for him, but he'll try. I know he'll try. Give us a hand here. We're trying to hoist a five ton pill."

## CHAPTER XXVIII

GRET-O-GRET was taking in all of the sights and sounds, in spite of his illness. To him it was a strange pageant, indeed. Contrasts—everywhere contrasts! Good and bad qualities wrapped in the same kind of packages. Earth men who were friends. Earth men who were foes. Wingmen who hurled bombs. Wingmen who struggled to bring him a few drops of water.

If Gret had not already been treated to some language that furnished the key to understanding, he might have believed these little creatures quite devoid of any consistent purposes.

By applying the tools of language and adding a generous quantity of insight from

his own well developed intelligence, Gret was able to keep pace with the passing show. One of the most remarkable things was the way these creatures could influence each other. He had watched the green-winged leader win support, little by little, to a policy of friendliness and fair play. And he had been most interested in observing the wonderful teamwork that sprang up between his loyal friend Paul and the friendly wingmen. Only by working together had they been able to break into the supply box and lift the pill which he, Gret, needed.

Wings, ropes, muscles. A truck that fought its way over broken roads, back to that part of the valley where Gret rested. Again, wings, ropes, muscles. And above all, teamwork.

Gret swallowed the five-ton pill.

It began to take effect immediately. For two hours Paul stood by, saying nothing, waiting. By that time Gret was breathing more easily. He began to talk a little in his thunder-like whisper.

"Thank you . . . I have rested well . . . If I could get back to my ship—the air of Mogo—I would soon be all right."

He sensed that Paul was disturbed about something, pacing back and forth beside the sound truck.

"When you are feeling well enough," Paul said finally, "I must give you some bad news."

"Yes . . . Give me the news."

Then he listened to Paul's words about new destruction that had been reported from a neighboring planet, Mercury. Paul was terribly hurt over it. Through all these countless centuries, the solar system had rolled along peacefully. And now, within the space of weeks, two of the planets had become targets for outrageous, unprovoked attacks.

"The whole solar world will be in an uproar," Paul declared. "It looks as if every planet may be doomed. People everywhere will be frantic to move to some place of safety, and there will be no place to go. Is there anything, Gret-O-Gret, that we can do?"

Accompanying Paul were two other earth persons, a male and a female, young

and wholesome and good to look upon. Gret was thinking of them and their right to live.

"I had supposed that Mox would have returned to Mogo before this," he said slowly. "No, he has not returned. He is still playing his evil tricks, like an errant child, heedless of his destruction. I must try to find him."

Then Gret rose from his sick bed of dust and stones and walked slowly back toward his thirteen-mile space boat. He carried his three little visitors and their car in his hand.

"The rest of us will go back to the Banrab camp on the other side of the planet," Paul said. "We must reassure the earth's people that you will try to help us. They are in danger of blaming you . . ."

Gret forgot about his homesickness. Here was a challenge to him to be useful. To these little people with their intricate and complicated patterns of life, a favor from him might make all the difference.

"If I can only find Mox-O-Mox, the rascal, I will force him to return home and face the Mogo law."

This declaration of intentions left the three earth people silent and bewildered, no doubt wondering whether Mogo justice could possibly reach out this far through space.

"Do you wish to take your box of food and supplies along?" Paul asked.

"It may be left for the friendly wingmen to feed upon."

"They'll have food for many years to come," said Paul. "If you leave on this errand, Gret, will you be returning to us?"

"For you and Katherine I would like to return. However, as the Mogo saying goes, 'there are always new landings.'"

THE younger man with the girl now spoke up to voice a purpose of his own.

"We may see you in Mercury soon, Gret-O-Gret. As soon as they get through questioning Paul at Banrab, I have a hunch my flivver will streak out to see what the score is with this fellow, Mox."

"Do you say they are to question Paul at Banrab?" Gret asked.

"It's on the docket," said George.

"They've got to convince themselves that Paul didn't start all this mischief himself."

Gret took time to absorb this pertinent detail. Then he said confidently. "We shall all meet again soon," and went on to his space boat alone.

The Banrab camp, meanwhile, had turned into a three-way argument. As soon as George landed, he and Anna and Paul Keller met Mr. Waterfield. The jamboree had become too much for the billionaire and he had walked out for a breath of something more refreshing than hot air.

"The captain wants to start right back to Venus for another load," Waterfield explained. "But Judge Lagnese declares we should agree on some rules first. After all, the Venus settlers will be panicky and they may pour back here by the thousands if we let them. The ruined earth will look safer to them than Venus after what has happened on Mercury."

Waterfield went on to say that he thought the judge and the captain could work out their differences if it wasn't for Garritt Glasgow.

"That little bird-faced dictator is throwing monkey-wrenches in every one else's machinery, and he's grabbing more power for himself every minute. He has some phobia about capturing and trying Paul Keller."

"I am Paul Keller," Paul said. "Tell him I've already been captured."

Waterfield took the news with equanimity, as if he had guessed Keller's identity already. "The Venus Express was about to start out after you. When I walked out, Glasgow was putting the pressure on the captain."

"How soon can I have my trial?" Paul asked.

Mr. Waterfield regarded him in the light of his curious question. George was convinced that the explorer was sincere.

"I'm sorry this trial has to happen," Waterfield said. "I know how highly you were regarded when you left on your expedition. It seems cruel of us to question your motives. But there are certain pertinent facts that have thrown you in a very bad light."

Paul Keller nodded. "I want to hear about those facts."

They walked up the path toward the cliff road. Mr. Waterfield hinted that there might be a slight delay in the trial. When Paul probed for the reason, Waterfield came back to Garritt Glasgow.

"That's another reason he was putting the pressure on the captain to lend him the Venus Express. He has learned that some wingmen he dispatched from Venus have thus far failed to put an end to the giant. He insists that the giant should be killed before your trial begins."

"Why?" Paul asked.

"There's just the possibility that the jury might feel freer to use its own judgment if they aren't thinking that a Mogo monster might walk in on them while they're deliberating."

George watched Paul Keller take all of this with no tell-tale expression to reveal his emotions. If he is innocent, George thought, he must be seething with quiet rage.

THE entrance of the main cave had been taken over by the self-appointed councilors. George and Anna wondered whether they, as members of the original governing committee, would have a voice. Apparently not. It was all Glasgow and the judge and the captain could do to hear their own voices. Others in the circle had been reduced to the status of interested listeners. At the moment, Glasgow was beating his fists in the air, demanding that the captain lend him the Venus Express. One good atom bomb for the giant would turn the trick.

"Where are you going to get your atom bomb?" someone asked.

All such questions found the little bird-faced dynamo ready with some sort of answer. Poppendorf stood near him, his huge arms folded and his high shoulders and hard face looming as a threat to any and all who might think to disagree with his master.

"You did bring those boxes of munitions, didn't you, Poppendorf?"

"Sure, they're here. They're being guarded, like you said."



"Then there's still time before dark. All I ask of you, captain, is that you—"

Glasgow's jaw dropped. His nervous eyes went wide, then narrowed. He was looking at Paul Keller, who had just walked up unnoticed, in the company of George and Anna. Keller, tall, square-shouldered, clear-eyed, the lines of his face deepened by tragedy.

To face the leader of the Mogo expedition again, in the presence of people who had come to believe that leader a deadly destroyer of planets, called for a sort of stage presence. Glasgow rose to the occasion. If he was shaking in his boots or feeling any pinch of conscience, he didn't show it. He made a brisk gesture.

"This is Paul Keller, gentlemen. The man we've been waiting for. Porters, take him back in that corner of the cliff and tie him."

"All in the day's work, eh, Glasgow?" Paul said.

"You'll have your chance to talk later, Keller," the little man snapped.

The porters moved to obey. Paul Keller's eyes searched the faces of the group, as if trying to read the verdict in advance of the trial. He made no move to resist as they led him away. Katherine was standing back in the shadows of the cave, and George thought that she communicated one of her faint, ironical smiles to him.

"I'd advise you not to try anything fancy," Glasgow called after him, taunting. "The edge of the cliff isn't too safe . . . Now, gentlemen, as I was saying—"

Judge Lagnese broke in. "Let's get this trial over with. You're holding up the whole program. We're not doing things legally. We should elect officers and proceed to—"

"I'm ready to proceed with the trial as soon as we've executed the giant. You agreed, Judge, that the committee would stand back of that action. Now, captain,—the keys to your ship, if you—*please!*"

Glasgow gulped the last word. His eyes flashed skyward. In the northwest a massive cloud appeared. No, not a cloud. A Mogo space boat. *Thirteen miles of space boat.*

Everyone saw it. If any persons were sleeping in the caves, or eating, or fixing their living quarters, or assembling power plants, they all came out on the run a moment after the boat hove in sight. People didn't shout and gasp and squeal like that unless there was something worth seeing.

Somehow the sight didn't terrorize, at first, so much as it hypnotized. The unbelievable was before their eyes, a leviathan of space travel. It was moving slowly, carefully, into their valley.

"Gret-O-Gret—just as I thought," Glasgow said, biting his lips bitterly. There was an ugly snarl in his voice. "He's here to threaten us. Now—do you see what I mean?"

The whole population of Banrab saw and understood, for they were all out in full force, clustered and crowded on the narrow cliff road. With such a space ship to gaze at, no one could be expected to know how a certain tragic accident occurred.

No one could be expected to know just how it happened that Judge Lagnese fell over the edge of the cliff at this particular moment.

Everyone heard the judge cry out as he fell. The cry sounded unnatural because he had many feet to fall and he kept falling faster until he crushed against the rocks.

George and the others, who reached him first, would always remember that his face, still recognizable, was no longer fiery red, but a death mask of white. But there was rich red on his moustache and goatee.

## CHAPTER XXIX

"IT WAS deliberate murder," Katherine Keller declared. "How could it be anything else?"

"Who would have done it?" Paul asked. "It couldn't have been Glasgow. He was over at the other side of the crowd. Do you think one of the porters—"

"Of course. You should know that, Paul. They're all hired thugs."

"I had begun to suspect it," Paul said.

"You're so slow-witted no wonder

they've tied you into knots. Well, what are we going to do now? Languish behind these bars until they get ready to try us?"

A small jail had been made of one of the alcoves of the main cave. There was room enough for the two Kellers to sit comfortably on the leather cushions that Mamma Mountain had brought them, though not room to stand. The air from the cool rocks was sweet smelling, Paul thought. He also took some pleasure in watching the traffic that passed on the other side of his bars.

The large cavern had been strung with lights, none too bright against the dark ceiling of rock. Energetic young pioneers had outdone themselves to sweep up the buckets of soil and dead leaves that had accumulated along the cavern floors.

The inner spaces had been divided into "apartments" marked off by chalk lines on the floor and sometimes walled with hanging sheets or curtains. At night the dull gray ghosts that Paul could see, looking as far as possible into the cavern, became brilliant sheets of white—the sharply defined walls of Garritt Glasgow's sanctum. The little man's shadow would show as a black silhouette, leaping about capriciously as he moved around in his room. Paul was fascinated by the caricatures which his bird-like face formed.

"They had no right to lock you up in here, Katherine," Paul said. "They're not going to bring any charge against you."

"I asked to be locked up," Katherine said.

"Why?"

"I wanted to talk with you, for one thing. Then, you know—I'm more comfortable here. Otherwise, those porters would be watching me like a hawk for fear I'd pull some trick to help you escape."

Paul shook his head. He was determined on that point. Nothing could make him walk out on this deal, he believed. He was here. He intended to stay here and clear up his record. Let them hold a trial as soon as possible.

"I'd have everything to lose by trying to escape. It would be just the evidence Glasgow would want."

"He's already using Gret-O-Gret against you."

"No! How!"

"He's saying that Gret came to intimidate the jurors, and that he'll start blowing up things, Mogo fashion, if they declare you guilty."

Paul wondered. Just what *would* Gret do under such conditions? Paul tried to look out the door of the cave. Two uniformed porters stood, dark shadows against the starry blue sky. The porters had become guards, for all practical purposes, serving in shifts at the cavern entrance. Paul had observed that they kept Glasgow informed on all comings and goings that might have any significance.

MAMMA MOUNTAIN came to the bars with some steaming coffee and a plate of sandwiches, Papa at her heels. He had come along to make fun of her, he said. He wanted to see her put the plate of sandwiches through the bars without spilling anything. As it turned out, the laugh was on Papa. The bars ran horizontally instead of vertically.

"Where Papa went to school the bars ran up and down," said Mamma with a sly wink at Paul.

"Until that day when Mamma came along and leaned against them," said Papa. "That was how I graduated."

Mamma Mountain cast an eye about to be sure she wasn't being observed. Then she spoke seriously.

"Mr. Keller, I know you're in a heap of trouble, and I want to tell you I'm sorry."

"Thank you, Mamma Mountain."

"You're a lucky man, to have a wife that sticks by you, whether you're guilty or innocent."

"He's entirely innocent, Mamma," Katherine said. "You would be surprised if you knew what dastardly crimes someone in this cave has gotten away with. I won't tell you because you might not believe me. But this whole rotten deal is a trick cooked up by someone who saw his chance to murder his way to power."

Mamma Mountain's eyes were large with sympathy. She was bewildered by the bigness of things she didn't under-

stand.

"I guess I better not start asking questions," she said. "First thing you know, they'd have me back of the bars—and then, who'd bring you coffee?"

"I'd do it, Mamma," said Papa Mouse brightly. "I could always climb through the bars."

Mamma spoke guardedly again. "Everybody wonders who they'll get to be judge for your trial, now that Judge Lagnese is gone. That was an awful sorry thing to happen, Mr. Keller. Judge Lagnese was a fine man. I just don't see how a man as active and alert as he was could have stepped off that cliff accidentally. Do you know what I think, Mr. Keller?"

"I can guess."

"M-m-m. Yessir, that's what I think. And a lot of other folks think the same thing . . . But I didn't say it, did I?"

"You'd better run along," Katherine suggested, "before you do get into trouble."

"Right away. Only—ah—is Big Boy Hurley one of your friends?"

"Why do you ask?" said Paul.

"If he is, you'd better warn him to watch the cliff. He could be next, you know. Maybe you didn't see how his hand slipped the other day and he gave Glasgow a popper on the cheek."

They talked a moment about George and Anna and their mysterious association with Glasgow.

When Mamma Mountain and Papa Mouse had gone, Paul continued to ponder over George Hurley. His relationship to Glasgow had troubled Paul from the start, chiefly because he liked George's looks and hated to see him tied up with bad company. But beyond that, there had been a puzzling something. George and Anna had both revealed, here and there, bits of inside knowledge. As if they had been inside Gret-O-Gret's space boat. As if they knew something of its shelves and charts. As if they had been so thoroughly imbued with Glasgow's version of the Mogo tragedy from the start that they couldn't eradicate it from their minds.

Gradually, however, the two young

folks had turned their ears to Paul's own version, and their suspicions had cooled, and they had become somewhat friendly.

OFFICIALLY, George Hurley had fulfilled his assignment, belatedly, for Garritt Glasgow. He had brought back the man he had been ordered to get. He had succeeded, of course, because Paul had come willingly. Nevertheless, there was a chance that this success would restore George to the good graces of the wiry little dictator.

Or would that slap prevent a reconciliation? There must have been something deep back of that.

"It happened on impulse," Katherine said. "Anyone could see that he was terribly embarrassed because he couldn't explain it. And strangely, Glasgow passed over it."

"Then it may have been forgotten."

"I heard one sharp reference to it," Katherine said. "Someone mentioned that if a man could slap Glasgow without meaning to, he could also push Judge Lagnese off the cliff without meaning to."

"Oh-oh. We'll hear more of that. S-s-sh. Someone's coming up the path."

Poppendorf was the first to appear as a black, high-shouldered shadow beyond the entrance. Glasgow's voice could be heard. Anna and George and the two porters were also in the party. Glasgow was doing most of the talking. He was still angry at the captain of the Venus Express, though the ship was now thousands of miles away. Glasgow's remarks were little more than childish grumblings because the captain had not yielded to some of his whims. But the captain had been staunch in his conviction that there would be many more people waiting at the Venus capital to escape to the earth at first opportunity. In fact, he envisaged a panic unlike anything the planet had ever seen.

Sticking by his guns, the captain had rounded up his crew and taken off. He had no passengers other than a corpse. A brief service had been held for Judge Lagnese, and the body had then been placed aboard the Venus Express to be

taken back for burial.

At the cavern entrance the party stopped while Glasgow checked a few matters with his guards.

"As long as that giant is parked outside our doorway, we don't have no trouble making people take orders," one of the guards reported. "Frankly, boss, we're scared out of our pants. Frankly, boss—I mean, Mr. Glasgow—"

"That's better. Mind your manners."

"Yes, Mr. Glasgow. Did the Venus Express get off all right?"

Paul listened with extreme distaste. Glasgow was building up his personal power with every contact. He might have been a prince or a king condescending to associate with the common people. However, he was obviously uneasy about Gret-O-Gret. He was sounding out his guards as to their own state of nerves, sifting for the best answers to their questions before he came on into the cave. There would be plenty of questions for him when he got to the big open chamber that was to serve as an assembly room. The whole new group of Americans from Venus who had arrived not many hours before, so full of noise and enthusiasm, had been frightened into near paralysis.

Did the giant know there was a camp of people here at Banrab? Yes, Glasgow had already admitted this to them. The big ship hadn't come here by accident. Either it had followed George Hurley's coppery flivver or it had come by directions which Paul Keller had furnished. Come what might, the giant had settled down on their doorstep, so to speak, and was probably having his night's sleep somewhere within his thirteen mile ship, waiting for morning. No one had seen him leave the ship, though this meant little, since the curve of the valley obscured half of it from view. Neither had anyone seen any lights.

And what would the earth people do in the morning? Would they dare show themselves? No, Glasgow had given them their answer on this point. There were supplies enough in the cave to meet their needs temporarily. They would stay inside and play safe—at least until they

had a chance to see what the giant was up to. It was Glasgow's reassuring theory that Gret-O-Gret would be dead within twenty-four hours, and their scare would be over.

"We'll not count on the wingmen to do it this time," Glasgow said to the guards at the entrance. "I've been making plans with George Hurley and Poppendorf. If any nervous persons take a notion to go sleepwalking out of this place in the night, turn them back. Do you understand this thoroughly?"

"Yes, boss—"

"Yes, *what*?"

"Yes, Mr. Glasgow."

"All right. Watch it. One more thing. Have you seen or heard any Venus wingmen?"

"You mean *here*?"

"Here. At Banrab. This evening."

"Not a thing, Mr. Glasgow."

"All right." Glasgow turned a scornful look at Anna. "It was just this girl's imagination. She thought she saw some. If she did, they must have come with Gret-O-Gret. But he'd have no reason to bring them—not after what they tried on him."

"Paul Keller might have some idea about that," George suggested.

"Keller's ideas couldn't interest me. He'll talk when he goes on trial."

Paul, listening to these exchanges, called out from his jail. "And *when* will that be, Mr. Glasgow?"

The little dictator swaggered past heavily, refusing to meet Paul's eye.

"*When will that be, BOSS?*" Paul yelled out sarcastically.

Glasgow stopped cold, and Paul thought he would have to come back and talk. But he snapped at one of his porters, "Make sure our prisoner has plenty of bread and water. He's beginning to snarl like a wild animal."

"Very well," said the porter, "bread and water."

"Until the trial."

"Until the trial," the porter echoed.

"And another thing," said Glasgow. "Bring Katherine Keller in to me. I want to talk with her."

## CHAPTER XXX

"WINGMEN!" Paul kept saying, more to himself than to Katherine. He was doing his best not to appear too disturbed by her scheduled visit with Glasgow. "Do you suppose that Gret had managed to clinch their friendship?" he asked her.

"That big green-winged leader was nobody's fool," Katherine said. "If he and Gret have struck a bargain it might lead to curious things."

"Such as?"

"A permanent wingman colony on the earth, with Gret-O-Gret's blessing."

"Do you think Gret will be satisfied to go on living here, apart from his own people?"

"If he just had us to entertain him—"

The porters were coming for Katherine. She gave Paul a little wink. "How would you like some shadow movies? I'll keep in sight."

Paul smiled. He knew she was referring to the sheet that formed the wall of Glasgow's "apartment." He could trust her to take care of herself.

She made a gesture of spitting on one of the porters who barked orders at her. Paul grinned at their deadly manner of holding a pistol over him while they unlocked and relocked the panel of bars that held him captive.

For a few minutes he was alone. It was quite late. Most of the cavern population had evidently bedded down for what would probably be a sleepless night. The guards at the entrance weren't going to have much business. The newly arrived people wouldn't do any moonlight strolling tonight. They had heard enough descriptions of Gret-O-Gret—his mile of height and brawn in proportion—to know that the tiny corners of a cave, entirely out of his range, were much to be desired.

Footsteps . . .

Such *light* footsteps for such a heavy woman. It was Mamma Mountain. Red robe and purple slippers and another plate of food.

"I thought you might want another sandwich, Mr. Keller."

Paul was amused at her slight timidity. Maybe it was the quiet and the lateness, maybe her hidden fears.

"Any metal in the sandwich? I could use a key to unlock this cage. Or a good file."

"Sorry, Mr. Keller. I just came down because I didn't feel like sleeping. And I didn't know whether I should lie there awake, listening to Mr. Glasgow talk to your wife."

"Was it interesting?"

"He's telling her that they might borrow George Hurley's space flivver and take a long ride together somewhere after he gets to be the dictator—no, he said *director*—of the earth."

"Didn't he offer to throw in a palace or a yacht, the cad?"

"He didn't have a chance. She started making jokes, and he began to get sore. Then she got quiet and listened and talked politely. But he's not getting anywhere, I can tell you that."

"Look," said Paul, "I can see her shadow from here and I know she's all right. But you keep right on listening—"

"What's *that*, Mr. Keller?"

A SOUND from outside the cave entrance had attracted their attention. The flutter of wings. Somewhere out there in the darkness a few wingmen were spying. The two sleepy guards roused up and shot beams of light across the cliff road. Beyond the road there was nothing but air and sky—lots of it—plenty of room for clever wingmen to fly by without being discovered.

"You'd better get back to Papa Mouse," said Paul.

"I'd better—uh-huh. I'm too scared to twitch. Besides, Papa Mouse and George Hurley are bunking together, and they're both sleeping like logs. Anna Pantella came in with me, and she kept crowding me out of bed."

"She crowded you? . . . S-s-sh! There they are again."

The guards had their guns ready, but they weren't too sure what the visit was all about. They moved down the road a few steps and paused to listen. There was

a curious lot of chatter and wing fluttering only a few yards away. A female voice—

As silently as a leaf falling, the big green-feathered wingman sailed into the cavern entrance. The guards didn't see him. The noise had drawn them away. It was all a ruse, and it was working. But if that little purple-winged female was doing all the chattering and fluttering, she was taking a long chance with her life.

"What's going on out there?" one of the guards shouted into the darkness.

At the same time, the green wingman came tiptoeing along the cave floor, looking in all directions until he spied Mamma Mountain. He put his hands over his lips. Mamma was sufficiently hypnotized to do the same thing. Paul heard her swallow hard, but thank goodness she found no voice to scream.

"He's a friend," Paul whispered. "Don't make any noise. He's come to see me."

If Mamma Mountain succeeded in controlling herself beyond Paul's expectations, the guards carried on with almost enough noise-making to spoil the green wingman's game. But the wingman worked fast and took his own chances.

"Keller."

"Yes."

"The giant wants you. He's going to Mercury to catch someone. Will you go with him? He says you are in bad trouble. He says the trouble will disappear if he can catch someone at Mercury. Get out of your cage and come. He is ready to go."

Mamma Mountain, weaving and about to faint, now found her voice. Not a scream, but a weird, frightened "Woo-oo-oo-ah!"

The walls of Glasgow's apartment rustled. Savage footsteps sounded.

"You're caught, Green!" Paul gasped. "Get out before they shoot you."

The ceiling was about twenty-five feet high at one point nearby, and the green wingman had evidently already observed this. One leap, one flutter, and he was up, clinging to the rugged stone.

A moment later Glasgow bounced into view. Two porters followed him, and after them came Katherine. What happened,

everyone wanted to know. No one saw the wingman. Glasgow stopped at the cage and demanded to know what Mamma Mountain was doing there.

"Was it you that cried out? Speak up, what happened?"

"She just brought me a sandwich," Paul said.

"Yes," Mamma Mountain whimpered, "When he started to eat the sandwich, I all at once got sick—so I went *woo-ah!*"

"He ate it, so you got sick. That doesn't make sense, woman. Get yourself to bed."

Glasgow had come too close to the panel of bars. Paul reached out and closed a hand over his wrist.

"You don't make sense, you lying wretch! Let me out of here before I pull you through these bars!"

The cry that Mamma Mountain had given forth was nothing compared to the one she was giving now—and it was a poor second to Garritt Glasgow's. Katherine's voice, however, was the one that Paul heard.

"Stop it, Paul. They'll shoot you."

PAUL had closed an iron grip on Glasgow's wrist and he couldn't seem to let go.

"You miserable, lying, thieving devil. When I think of how you murdered in cold blood—I should have brained you on the spot, but I was too soft-hearted. You screeched for mercy, didn't you, you skulking dog? So I let you go. I gave you a chance, and how you promised—"

"Paul!" Katherine was screaming. "Stop it, Paul."

The guards had come, guns ready, and Garritt Glasgow, writhing in pain, tried to give them the order to shoot.

It may have been Mamma Mountain's weird cry that froze the action when the first pistol was steady and aiming at Paul's heart. Mamma Mountain cried and pointed. Everyone looked to the entrance to the cave.

Instead of the night's blackness, they saw an immense purple and orange eye—so large that it seemed to fill all outdoors.

The orange glow cast a baleful light into the cave entrance. Persons hurrying to the

scene from their cavern apartments were stopped cold. Several persons screamed.

The eye was much larger than the entrance of the cave. It moved from side to side, for its owner was trying to get a clear view of the inside of this place.

Even Mamma Mountain's voice could not do justice to the occasion. Paul heard George Hurley shout, "Hey, that's the giant. He's reaching in."

The fingers-of-fingers appeared at the cliff's edge, extending themselves from the larger fingers of the immense hand. The glowing eye had moved backward to make room for the hand to reach in.

Paul wondered whether Glasgow was barking any orders in that wild moment. If he was commanding a retreat, he was getting one-hundred percent obedience. If he had ordered anyone to shoot, his suggestion was generally ignored. Any pistol fire was quite incidental to the real business of getting out of the way.

The only one who didn't run back was the green-feathered wingman. He fluttered down in all his glory, squawking a few

wingman words in his excitement. He ran to the giant's fingers, brushed his wings over them to identify himself, and *guided* them in.

With the wingman's help, the giant's hand reached the bars of Paul's cave. His fingers-of-fingers crushed the panel, and he reached in and drew Paul into his hand.

"Wait!" Katherine cried, running forward. "Wait, Gret-O-Gret! What are you going to do?"

Paul heard her shrill outcry, amid the clamor, but he didn't try to do anything about it. Things were happening too fast.

The green wingman flew past him as he was lifted out into the night's darkness. A winged female joined her hero, and they followed Gret-O-Gret back to the Mogo space boat.

A moment later the lights of the boat came on. Again, that soft, creamy glow of light over the glass-like shelves, Paul climbed down off the giant's fingers. The great hands reached to the controls and the thirteen-mile boat was moving.

*(Continued on page 136)*



## GODS OF THE SUN



**H**ERCULES was a hero of Greek mythology, whose marvelous exploits are related to the power of the Sun. The story of the death and resurrection of Hercules is an allegorical description of sunset, and its rebirth on each day.

The death of Hercules was a tragic affair. He had slain a centaur for insulting his wife Dejinara. In revenge, the dying centaur gave a coat which had been impregnated with poison to Dejinara, telling her that her husband would always love her if she could prevail upon him to wear the coat. Hercules put the coat on, and the poison soon began to affect him, causing great agony. He tried to remove the coat, but found it impossible. Knowing that death was near, he built for himself a great funeral pyre, threw himself upon it, and died in the flames. His father, Jupiter, king of all the gods, observed what was happening and caused thunder to roll and lightning to flash about the scene, and Hercules' departure from life took place in a blaze of glory. Unseen figures then carried Hercules into heaven, where he was restored to life, and then married to Hebe, the spirit of youth.

Sometimes the Sun god was called Apollo. He was supposed to drive the chariot of the Sun across the sky each day. He lived in the East with Aurora, goddess of dawn. It was her duty each morning early to drive back the stars, and open the

gates of the day for Apollo. He then drove the chariot of the sun steadily up to the zenith, then descended into the west, until he passed through the gates of twilight.

Apollo had a son named Phaeton, who, even as do earthly sons, desired to emulate his father, and also drive the chariot. Apollo consented, reluctantly, and the young man set out. The terrific heat of the day, however, soon put him to sleep. The fiery steeds who were drawing the chariot, no longer guided by the reins, began wandering from their course. They came close to earth, in northern Africa, and that country became scorched, as did the inhabitants, their color darkening. These people cried out in distress, and Jupiter cast a thunderbolt at the unfortunate Phaeton, who fell lifeless into the Eridanus river. This story may have been imagined after an experience with the distress accompanying a summer drought, which usually ends in lightning and thunder storms.

Another fanciful tale about the sun concerns the origin of the sunflower. It seems there was a beautiful damsel named Clytie, who was deeply in love with the Sun god. He did not respond to her interest, however, and her head drooped in despondency. Jupiter, sympathetic, turned her into a sunflower so that she could raise her face and watch the shining Sun from morning till night.

—Mildred Murdoch

## CHAPTER XXXI

FROM their mountainside cave the frightened inhabitants saw the thirteen-mile ship take off. Its lighted windows slid along through the blackness, accelerating as the great boat lifted to clear the black barrier of mountains. Swiftly it skimmed along under a wisp of cloud, like a city flying through the night. A thin trail of red light followed in its wake, brighter for a moment as it charged up into the stratosphere. Already it was racing

toward the stars, and its vast bulk had become only a speck of light shooting out into the wide universe of space.

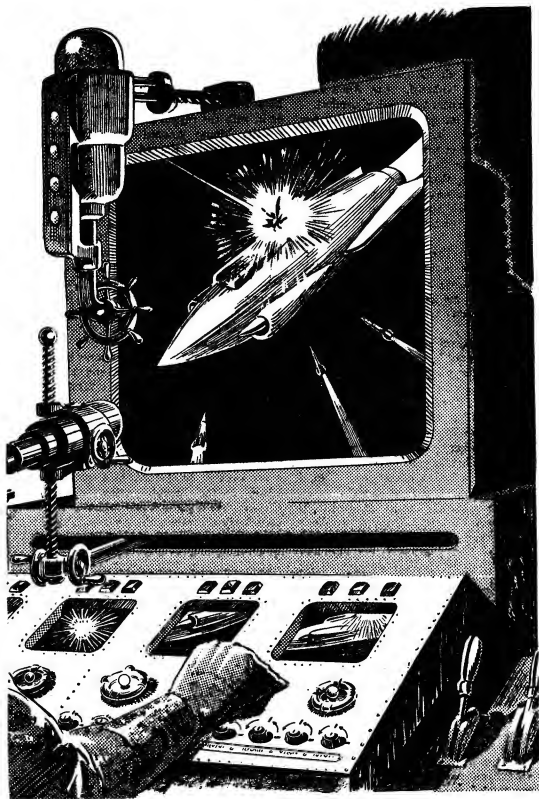
Katherine tried not to let anyone see that she was crying. She was a strong person, and her strength didn't often let her down. No one paid much attention to her now. Everyone was too badly shaken over what happened. Mamma Mountain, far from being her calm and competent self, was indulging in a bit of hysterics.

"Woo-oo-ah!" she would cry out. "I hear the giant. I see his eye. He's reach-

They watched a gigantic explosion  
take place on the plunging ship







ing!"

She might have carried on that way until morning if George and Anna hadn't taken care of her. Papa Mouse was exhausted from all the excitement and too sleepy to be bothered. But Anna Pantella's reassurances were full of comfort.

"The giant has gone, Mamma. You saw him fly away. By this time he's 'way on the other side of the moon . . . He didn't want us, Mamma. He only wanted his special friend, Paul Keller."

"Mr. Keller was a good man," Mamma Mountain would sigh, quieting down. "He liked my sandwiches. What will the giant do with him?"

"Nothing. They're friends, don't you see. They're both great space explorers. They ride the sky and like it. Gee, I wish they'd taken me along." Anna turned to George. "Don't you wish you could have gone?"

"I may go, anyway," said George.

"Oh, let's do!"

"Where do you get that 'let's do' stuff?"

"I mean—why don't you? Gee, if I had a space flivver like yours, I'd go to Mercury just to see what happens. If my brother from Venus was here—"

"He'll be here soon," said George. "You can get him to take you."

Anna gave him a queer look. "No, I don't think so. Not right away."

"He'll be here," George repeated. "If this planet blasting keeps up, everybody and his space ship will be here."

"Is that bad, Big Boy?"

"As far as your brother is concerned, it's good. I never did get to meet the guy."

Mamma Mountain began to forget her state of nerves. She asked Anna questions about her brother—how old he was and how he had happened to take up space navigation and what kind of grades he had got in school. Was he married? How many children did he have, and were they good looking like Anna?

"They're adorable children."

"How old?"

"Three and six."

George spoke up. "When we were on Venus you told me they were two and four."

"Uh?" said Anna. "Oh, well, they've had birthdays since then."

"Oh," said George sleepily. "Time does move along, doesn't it. How soon will they be four and eight?"

"Will they come to the earth?" Mamma Mountain asked. "Do you think they'll fit in with the rugged life here?"

Papa Mouse groaned between snores and murmured, "Rugged. You can say that twice. Go to sleep, will you?"

It was daylight before George slept. A bright dream had taken possession of him. It concerned a gleaming copper-striped space flivver chasing through the heavens in the direction of Mercury. If he went, whom would he take with him? Space traveling was full of lonely hours and it wasn't good to be alone too much. But an uncongenial companion on a long jaunt was worse than loneliness. You thought twice before you picked an assistant—or a crew—or a partner—or a wife.

Wife? Now what had made George think of that? He roused up, dressed and shaved and looked around for some breakfast.

THE Banrab camp was in quite good spirits this morning. The newcomers from Venus were making big plans. There were engineers among them who were already working on sketches of a spaceport village in the Banrab setting. Garritt Glasgow was nursing a bad arm that had been bruised against the bars of Paul's jail. A young doctor attended him, after which Poppendorf stood guard for him and announced to all comers that Mr. Glasgow was not feeling well and was not to be disturbed.

Meanwhile, Mr. Waterfield ascended to a sort of informal leadership. The loss of Judge Lagnese was felt keenly by many of the group, and it was natural for many persons to turn to the late judge's friend, Waterfield. As a man of wealth, he was on his guard against being stampeded by any chance adventurers' requests for funds. But as everyone was soon to know, it was largely Waterfield's money that bought goods and supplies from Venus for the establishment of the proposed Banrab spaceport.

George waited for a chance to talk with Mr. Waterfield in private.

"You're busy so I'll not take but a minute."

"Not too busy to take a walk with you, my boy. I've been sticking much too close to this cave. Frankly, this primitive life doesn't agree with me."

They jogged down the path, and the vigorous man of fifty-five discarded his tie and opened his collar, revelling in the fresh air and exercise.

"A cave can be rather confining, you know. This is all very exciting, getting our plans together for a new earth. But I've been rather too close to it."

George led the way to his flivver. He knew that Mr. Waterfield needed a change of scenery. They got in and skimmed away over the top of a bank of rain clouds, and up through the thin air.

They looked down on the jagged teeth of new mountains that poked up through the sunny side of the clouds.

"Riding the skies is good," said Mr. Waterfield. "It gave a man a sense of strength and somehow it fills his soul. But a man can't live on these high moments alone. It takes a lot of concentrating over blueprints and sweating in the shops to give us blessings like these. It isn't all glamour."

George liked to share Waterfield's thoughts—thoughts that gave meaning to many of his own unexpressed feelings. It was a pleasure to associate with a man who, for all his wealth, had not lost his appreciation for the sweat of planning and digging and building. Waterfield's millions of dollars had not caused him to turn his back on the solid values and escape to a life of ease and pleasure.

They swung down over the middle of the continent that had been America. It was hard to fathom the vastness of the ruins. Waterfield saw the immediate need of cargo planes to salvage quantities of goods—trucks and bulldozers and concrete mixers, lumber and building materials—equipment and materials that were needed at once at Banrab.

They flew low over the valley where Gret-O-Gret's Mogo boat had landed, and

they saw a group of wingmen sitting on top of the half-mile white box, enjoying the luxuries of the giant's gift.

"Food and supplies for a few years to come," George said. "The wingmen made friends with Gret-O-Gret while he was ill. Originally he had intended to offer the box as a gift to the earth people—compliments of a self-appointed ambassador and friend from Mogo. But when Gret arrived he found the earth in ruins. That's the story Paul Keller gave me."

Waterfield saw the camp of the wingmen as they passed over one of the higher hills. He asked for more information about Paul Keller and the Mogo expedition.

"You see, I have been living on Venus for several years," Waterfield said rather apologetically. "When Keller and his party left on a new expedition, I read the Venus newspaper accounts very casually. I don't quite understand what has happened here. Frankly, Garritt Glasgow doesn't impress me as being trustworthy. He's riding too high and making too much trouble. Judge Lagnese had begun to detest him wholeheartedly."

"HIS slippery as the devil," said George. "I think he was lying from the minute Pantella and I rescued him from the Mogo giant's ship."

"You rescued him? I hadn't heard."

"We haven't said anything about it because things have been happening too fast. But as I look back on it now, I see that Garritt Glasgow got the jump on us from the minute we found him—imprisoned within a screen—on the Mogo ship."

"You two youngsters went aboard the ship?" Waterfield was all ears.

"Yes—out of curiosity. We almost got stepped on until we climbed a long incline. We finally reached a high ledge, a half mile or so above the floor. From there we could see the Kellers—"

"Prisoners?"

"No, they were on another shelf, pointing to charts and drawing pictures. They and the giant were learning to talk together, and he was being plenty friendly to them, no doubt about that. In spite of being a million times bigger, he was eager

to understand them. They had all just come back from Mogo and they were just getting used to the idea that the earth was not what they had expected it to be because it had been blasted—"

"By whom?"

"Well, according to both stories, it was another giant—a relative of Gret-O-Gret—who did the deed. But Glasgow claims that Mox-O-Mox, the giant cousin, did it, on the instructions of Keller and Gret, who planned the damnable business. But Keller's story is that Mox and Gret had had a fight, and Mox had learned where the planet was located and had come and committed the mischief ahead of Gret's visit. When Gret arrived and saw what had happened, he was bitter over the deal. He unloaded his big white box that he had intended as a gift from Mogo, but there were no people to give it to."

Waterfield listened thoughtfully. He asked George to go on with the story of his and Anna's entrance into the giant's ship.

"Well, as I said, we climbed to the shelf in the ship and saw the Kellers, and we went closer, but someone called to us. It was Glasgow. They had him imprisoned in a cage, and he called us over and gave us a line about how the giant and the Kellers were plotting against the earth, and we fell for it. I guess we were too scared to question his facts."

"Did the Kellers or the giant see you?"

"No. We rescued their prisoner right out from under their noses. They still don't know about it."

"Hm-m." Waterfield shifted uneasily. "So that's how it all began. Little Mr. Glasgow has a persuasive way about him, I must say."

"The Kellers say that he got away with two murders on the expedition, and he means to have Paul killed to cover up."

"What about Katherine?"

"He has a strange notion that he can win her over. He did his best to get me to do away with Paul. He and his sister made me believe there would be a secret three hundred thousand dollar reward if I *happened* to bring Paul back dead instead of alive."

Waterfield almost jumped out of his seat. "Great guns, Hurley. This is the most colossal piece of trickery I ever heard of. They must have thought you weren't dry behind the ears, to use you the way they have."

"The worst of it is, I kept falling for it," George said, mopping his forehead. "The way they kept flashing their money and jewels in the presence of Venus people—"

"I know what you mean," Waterfield said. "I'm familiar with the methods of some people, who use their wealth to excite the public."

THE ship was skimming over the ocean, returning to the Banrab base.

"I think I have a scheme, Hurley," Waterfield said presently. "Dictator Glasgow is beginning to look as black as the devil's own black cat. I think we'll put him to a test soon."

"The scheme being what?"

"Call it 'X' for the present," Waterfield said. "By the way, I believe you asked for a five minute interview—in private."

George smiled. "Just a little request. It's about Anna Pantella. Since you're helping with the arrangements for the Banrab village, I thought maybe you could have a lot or two saved for her—I mean for a house. You see, her folks owned this Banrab-land originally—"

"I see."

"And she was there, in possession, when I found her."

"Yes."

"And she has a brother—in Venus—who might bring his wife and their kids to visit."

"I think I understand."

"And besides, she'll need a place to live. Now you take me—I'm knocking around in space a lot. In fact, I'm figuring on a trip to Mercury soon. But if I were a girl—well, you know, they sort of hanker for a home and things. She doesn't know I'm asking for this favor for her, you understand."

"Hm-m—yes, you're right, Hurley. They do sort of hanker—" Waterfield seemed to be studying George out of the corner

of his very serious eyes. "I'll take your problem into consideration. There's one possible solution that may present itself quite naturally."

"What's that?"

"Some of the young men who recently arrived from Venus have already shown a natural interest in some of the attractive girls. Anna, obviously, is a *very* attractive girl."

The space ship gave a little downward lurch and almost clipped a tree top at the edge of the Banrab landing field. George muttered that he'd have to adjust the controls.

"I might add," Waterfield went on, "that a few young men have spoken to me about the possibility of financing private homes. A village must have homes, you know. In due time the new earth will bring forth its own new popula—hey! do you always land with such a bump?"

"Control's bad," said George.

"So, as I was about to say, I'll see that Anna gets the fairest kind of a break on her land—if we put our village here. Frankly, after what we've seen today, I'm not so sure. But speaking of Anna—if she wants a home—well, I'm sure things are going to be happening fast."

The space ship came to an abrupt stop at the edge of the field.

"Control's bad," George said. "I've got to take up some slack."

## CHAPTER XXXI

THE revolt against Garritt Glasgow was gathering momentum. Little evidences of it were cropping up everywhere.

"Popovers for lunch!" Mamma Mountain announced in her hearty voice. They were serving lunch out under the trees again. Now that both Keller and the giant were off the planet, the camp had emerged from the caves and taken to the open air. Mamma Mountain, assisted by Papa and a few other docile workers, was at the height of her glory as self-appointed chef. Since most of the colony were busy with tools, working on the space port, the village street, or the beginnings of truck gardens, they were glad to have the food department

handled by such a competent executive as Mamma.

"Popovers for lunch!"

The announcement soon evolved into a gag—Mamma Mountain's own—tinged with bitterness. There were popovers, all right, and they were delicious. Garritt Glasgow ate his fill hurriedly and went back to the cave where he had set up his private office. Then the gag began to pass around, from one person to another—but not to Glasgow's porters or close friends.

"Which will you have, popovers or pushovers?" Mamma Mountain would ask whenever a boarder came back to the serving table for a second helping.

"What's a pushover?" was the inevitable question.

Then Mamma would whisper something and the person would look around uncomfortably to be sure the words hadn't been overheard.

George went back for a second helping to get the lowdown.

"Popovers or pushovers, Mr. Hurley?" Mamma asked, her eyes gleaming with something stronger than mischief.

"What's a pushover?"

She whispered, "It's a person that gets too close to the cliff after quarreling with Glasgow."

George's pulses jumped. This was dangerous talk. It was spreading. If the porters didn't hear of it soon, some of Glasgow's other followers would.

"You may be the next pushover, Mamma, if this kind of talk gets out on you."

Mamma's big brown eyes shot a serious warning at him. "I've been looking for *you* to be it, ever since your hand flew loose. I still can't figure how he let that pass."

"Glasgow, and I are old buddies," said George with a wink. "I've rescued him a couple of times."

"The next time try to rescue somebody like Judge Lagnese. Our camp hasn't been the same since we lost him. Funny business. Nobody's been able to run it down."

"Take it easy, Mamma." George thought of Waterfield and "Plan X" and wondered how soon things might break.

During the next several days "popovers or pushovers" became a sort of underground password. And there was another dangerous expression that had come into use. Anna's words. "*Give it to him!*" Glasgow was always barking sharp orders, right and left, and he often forgot to cover his savage arrogance with a smooth tongue. Some listeners would retort, under their breath, "*Give it to him.*" The words added glory to George's well remembered slap and at the same time added fuel to the fires of revolt.

George had succeeded in avoiding Glasgow most of the time. When they passed, at meal times, George could imagine that the sly little dictator meant to call him on the carpet soon. They were studying each other, knowing there was about to be a clash.

Plan X was sprung shortly before the next arrival of the Venus Express. It began when George returned from a two-day absence from the Banrab camp—an absence that was unexplained and unauthorized. He came in fast, and the dust rolled up from the landing gear as he jerked to a stop. He bounded out.

"Where's Glasgow? I want to see him at once."

"You'd better see him," a surly porter replied.

"He'll want to see me," George snapped. "I've got news for him."

"What's happened?"

"That's for Glasgow to know," he said sharply.

"All right, Tight Mouth. He's up the hill in his office." The porter turned to a telephone that had been rigged up temporarily to permit communications between the valley and the cave. He called Glasgow and announced that Hurley had come and was in a dither to see him. That was all right with George.

AT THE cave entrance another porter and Poppendorf were standing guard. Poppendorf squared his big shoulders and thrust his hard jaw forward.

"If you get away with this, the boss is slipping. Where the hell have you been the last two days?"

"Out riding on a breeze," said George.

"Not so fast. You don't get by here till we check up." Poppendorf swung his arm up with a stiff-arm motion, not quite grazing Hurley's jaw, ending his gesture by brushing his own hair back quite casually.

"I have an appointment," George said. He didn't intend to be held up by any trifling quarrels. He knew that Waterfield and two other witnesses were inside the cave, *hidden, waiting*. That was according to the plan. They had prepared their hiding place, working carefully at odd moments over a period of days.

Poppendorf wanted to make trouble. He wanted to give George a verbal dressing down for all the indiscriminate running around George had been doing. He ranted for a few minutes, and George saw that the resentment and jealousy which all of Glasgow's porters felt toward him, because of his space ship, was particularly strong in Poppendorf.

"Your damned ship ought to be appropriated," Poppendorf said. "If anybody needs to get around, it's Glasgow . . . Don't argue with me, or I'll settle this business right now. If you were laid up with a few broken bones, your ship wouldn't stand idle."

A professional thug, George thought. He was a man of about George's weight, thickly muscled and raw-boned. The warm weather had caused him to discard the upper half of his clothing. He wore a pair of dirty white slacks and carried a pistol at his hip.

"I have an appointment with Glasgow," George repeated.

The porter in the black uniform, a trifle nervous over the glares that were passing between George and Poppendorf, started into the cave to check the matter with Glasgow. Poppendorf brushed past him. "Stick with your door, Pete. And while you're at it, park this man's firearms." Then he called in, making some effort to sound dignified, and announced George's presence.

"All right, all right, send him in," Glasgow's voice echoed back through the cavern walls.

At last, George thought. Poppendorf flung a final remark, "Your damned ship ought to be appropriated."

George drew a few deep breaths as he walked along the dimly lighted tunnel. The job he had before him must be done right. He had rehearsed it in his mind several times, but he knew he wasn't good at this sort of bluffing. Already he was fighting to steady his nerves. The encounter with Poppendorf hadn't helped matters.

"Mr. Glasgow."

"Well, Hurley. It's about time we had a talk."

"I have some very important news—"

"Before you begin, Hurley, I hope you're not going to do any accidental slapping."

"I'm sorry, I—"

"Because if you are, Poppendorf is ready to deal with you. Now, what's on your mind?" Glasgow, sitting in a folding chair, propped his feet on the rough box that served as a desk. "News, you say? Let's have it."

"Mr. Glasgow, a lot of things have happened to us since Anna Pantella and I first found you in the Mogo space boat. The earth looked pretty hopeless to all three of us that night when we escaped the giant and the Kellers. Then you took my ship and got up to Venus and got things started—"

"What are you driving at?"

"You depended on me for a lot of things, Glasgow." George's rehearsed words came out solid. "Sometimes I let you down. But sometimes I turned an unexpected trick for you, like that time I picked you out of the air when the wingman was flying off with you."

"Have you come here to ask for some favor?"

"I've just done a favor for you, Glasgow. One you didn't think I'd do. You ought to be happy over it. You know what I promised if I got that reward."

GLASGOW'S face began to twitch. "You're talking in circles. What's happened?"

"You remember that three hundred thousand dollars your sister told me about?" he said.

"Not so loud, damn it. That was a private offer. One of our friends—what the hell? You're not telling me that you—"

"How was that offer stated, Glasgow?"

The little man leaned forward on his desk, trying to read what was in George's mind. "The deal was, you were to go after Keller. You were to bring him in. If you happened to bring him in dead instead of alive, a friend of mine would present you with three hundred thousand dollars."

"That's right. And I agreed to kick back a nice hunk for the benefit of the Banrab colony—"

"For headquarters for the director—that was *your* offer."

"All right," said George. "How soon do I get the three hundred thousand?"

"What are you driving at? You brought him 'in alive. Or rather, he came of his own free will. And by the damnable hand of the giant, he got away from us."

"I'm ready to bring him in dead, now," said George, as cold as steel.

Garritt Glasgow's hand slipped off the edge of the makeshift desk. His jaw fell loose on its hinges. He spoke breathlessly, eagerly.

"Where is he?"

"Somewhere on the other side of this planet."

"With the giant?"

"No. The giant dumped him and went on his way—probably to Mars, though I wouldn't swear to it."

"Mars. My sister's on Mars. When did this happen?"

"Yesterday evening."

Glasgow leaped to his feet. "Take me to Mars. You've got a ship. I've got the dough to pay you—"

"Let's see it."

"She's got it—on Mars. Come on, don't stand there. Get that damned flivver of yours into the ether, quick!"

"Don't hurry me," said George. "First I want that three hundred thousand dollars."

"Later. Later. Come on—"

"Three hundred thousand."

"Glasgow whirled back to his desk, glaring. "What is this, a holdup! How do I know you've killed him?"

"I'll take you to his body. I shot him in the back—sort of accidentally-like—the same as I slapped you that time. I didn't exactly know how I was going to do it. But that three hundred thousand—I got to thinking. I figured I could make up to you for that slap if I'd—"

"Sh-sh!"

"What's the matter?"

"You think I want those guards to know I wanted him killed?"

"Did you?"

"Shut up, you idiot."

"So you wanted him killed."

"You *knew* that three hundred thousand was my own offer. You knew I wanted him killed."

"Do I get the money?"

"You'll get your money later. My sister's got it. Get me to Mars. Later, we'll settle up."

"WE'LL settle up right now," George said. He seized Glasgow by the arms and began to shake him. He might have felt like a bully if his anger hadn't begun to run away with him. His rehearsed speeches had flown to the winds. All the pent-up feelings from past weeks surged into his grip. The little man's bird-like face was a decided red for once, flopping hard.

"Stop! Stop, for God's sake. Give me a chance—"

"Why did you want Keller killed?"

"Who said I—"

"Why?"

"I don't know."

"I'll shake it out of you, you snake. How many of Keller's men did you kill on Mogo?"

"Stop it!"

"You killed two. Didn't you? Didn't you?"

"What if I did?"

"And you tried to kill Keller?"

"All right. Give me a chance to tell—"

"You meant to take over his ships—"

"Yes. Why not?"

"And his wife!"

"Poppendorf! Come in here!"

"And all this story about Keller's plot against the earth—it was a lie! Wasn't

it? Wasn't it?"

"Yes. Hell, yes. You're choking me! Poppen—"

Gunfire flashed through the cavern. George lifted Glasgow and hurled him bodily. Poppendorf, rushing in, stumbled into him as the little man bounced to the floor. The big shouldered bodyguard was thrown off balance for a split second. George seized the folding chair and flung it. It clattered into Poppendorf just as the pistol came up. A streak of yellow knifed across the room. Ziz-z-z! A corner of the makeshift desk disintegrated under the atomic spray.

*Smack!* George's fist caught Poppendorf's jaw squarely. The big-shouldered man tottered, and the gun fell from his hand. George kicked at it and missed. Poppendorf bounced back against the wall, then came forward like a prizefighter, springing from the ropes. His fists swung, a blur. George ducked, but the blow grazed his scalp and the hard punch he had aimed for the midsection was lost in the whirl.

*Crack.* That was his own jaw. It seemed to go right through his head, leaving a trail of stars.

For a moment his elbows hung loose at his sides. Another wide swing came at him. This time he ducked clean. Then he dived for the floor. Garritt Glasgow had crawled along the wall and was reaching for the pistol. George kicked him on the knee. For an instant the little man recoiled. But he had the pistol now, and George couldn't reach him. Poppendorf, jolting him back against the wall, came up with open hand, that stiff-arm gesture striking hard from the toe up—then, a *thump*.

George's head struck back against solid stone. He was sinking, sinking—not quite sure of anything. Somehow he knew that a yellow flash streaked in above everyone's head, and it wasn't Glasgow's pistol. It was Waterfield, Waterfield and the other two witnesses. They had climbed out of hiding, and Waterfield's bark was the most welcome sound George had ever heard. Waterfield had them. Everything was all right now. George slumped to the floor



and let himself go to sleep on the way down.

### CHAPTER XXXIII

GRET-O-GRET had lived a comparatively peaceful existence on his Mogo planet. The turmoil of his recent days on the earth had not been easy to take. On the night that he rescued his tiny earth friend, Paul Keller, from the Banrab cavern, with the aid of a wingman, he had been only too glad to close his Mogo space boat against the air of the earth and take off into the black skies.

As soon as they were well out into the heavens, he turned his attention to Paul to see how he had fared. The little fellow was pacing about disconsolately. Gret used a reading glass to study his companion's expressions.

Pleasure or pain? Gret was not sure, at first. The tight lines of a frown on Paul's forehead, together with the persistent movement of his lips, indicated that the little man was mentally re-enacting the recent hours.

Gret was busy at the controls for several minutes. He couldn't resist the temptation to swing close enough to the earth's moon for a satisfying view of its crusty peaks and valleys highlighted by the sun.

But his little guest showed little interest in the familiar sight. Finally the moon was left behind, and Gret went to work rigging up a tiny microphone and a loud speaker for Paul so they could exchange thoughts. This cheered the earth man noticeably.

"Green Flash, the wingman, performed well," Paul said. "He was glad to be a friend."

"I might have brought him and other wingmen with us," Gret said, "but they preferred to stay on the earth."

"I wonder if they will fly back to the other continent to join the rest of their flock."

"I wonder."

Gret was curious about them and asked Paul several questions. How closely related to earth people were they? Had the

scientists no explanation for the seeming similarity? Why did the wingmen so enjoy spying on the earth people? Had wingmen and earth people never tried living together?

In answer, Paul explained that there was far more difference between the two groups than he, Gret, might appreciate. Differences in background. Differences in degree of development. Originally, differences in language. And no similarity whatsoever in their cultural institutions.

"Until they began to catch the ways of the earth people," Paul explained, "they were extremely primitive. The brief garments they now wear have been adopted as a result of contact with the American colony."

"But they have learned to understand and sometimes speak your language," said Gret. "And they do understand the use of bombs and firearms. Does this talent not qualify them to mingle with you wingless ones who call yourselves Americans?"

"It qualifies them to become stooges for tricksters like Glasgow," Paul said in his voice of displeasure. Gret had not meant to bring up the troublesome subject of Glasgow. Paul went on. "It is conceivable that intelligent wingmen like Green Flash and Purple Wings might live in our social order. But if there were many Glasgows among us, the wingmen would be made miserable."

"If there were many Glasgows among you," Gret ventured, "all of you would be made miserable."

"How right you are."

Gret pressed his point, for he believed his idea was one that he, as a so-called giant, could see, which Paul and other earth men tended to overlook.

"Except for wings, you and Green Flash are much more alike than you and Glasgow."

His little guest gave a half amused sniff. He sat down on the edge of the wide, glass-floored shelf and dangled his feet. Then he lay back, hands under his head, so that he could look straight up at Gret without straining.

"Your philosophies are worth considering, Gret," he said, bending the micro-

phone to his face for perfect comfort. "You might add that you and I are more alike than Glasgow and I—except for size."

"Your words are true." Gret felt a thrill of elation. This earth man always showed such a quick understanding.

"But does that mean," Paul asked, "that you and I and Green Flash—all different in form—could live together in a social order more congenially than Glasgow and I?"

"Yes! Yes! So it does!" Gret spoke almost too loud in his enthusiasm, and his blast of breath made Paul hug the glass floor to avoid slipping over the edge. "Don't you see that neither you nor Katherine nor George nor Green Flash can live agreeably as long as people like Glasgow are around them!"

THE little earth creature fell silent then, and Gret knew that it had been a mistake to mention the name of Katherine. He was worried about her. She had cried out to him, just as Gret had removed him from the cave. Of course, she would have wanted to come, too. Did Paul fear that she would be unsafe, left in a world dominated by Garritt Glasgow? If so, Gret's point was proved.

The planet of Mercury expanded steadily, through the hours that followed. Eventually it widened to fill almost half of the sky. Soon its continents welled up, clear and hard in the light of the sun. Gret was watching his charts closely, and he called upon Paul to check his observations. Automatic cameras were at work, catching long-range and telescopic views.

"I see signs of Mox-O-Mox's visit," Gret was studying the deep blue pock-marks freshly blasted in the planet's surface. "He chose the sunny side for his target."

Gret had noted with interest that one face of the planet Mercury was always toward the sun, the other in the dark. Between the extremes of heat and cold, Paul had told him, the inhabitants of Mercury thrived along the boundary of light. Gret now piloted toward the rim of darkness.

"Where are the cities?"

"You can't see much of them," said Paul. The native Mercurians built most of their

habitations underground. When the engineers from the earth came, they followed suit.

Occasionally the telescope revealed a thin line that might have been a railway or a highway, following along the edge of a lake. The hills would swallow it up at either end, which meant that it had dipped down to some underground city.

A few tiny planes could be seen skimming over the surface at one point. They presently flew into a break in the earth and were gone. "I would like to visit such underground cities," Gret said.

"They weren't made for a man of your dimensions, I'm afraid. You'd break out at the ceilings. I don't mean any sort of offense, Gret."

Gret was amused. "No offense."

The radio which Gret and Paul had made ready was now in action, automatically signalling its call.

"If we don't get an answer right away, Gret, we'd better climb for more altitude."

"Will they think us an enemy?"

"From the size of this ship, they may think we are Mox-O-Mox returning."

"Mox's ship would be the *Rudu-frazoowuff*—the 'Red Comet.' It is a little larger than this ship, and is ribbed with red metal."

Paul was shaking his head, giving that warning frown.

"You are continually expecting people of our system to make fine distinctions, and I'm afraid we're not very quick to do it. They've never seen a ship the size of Rudu—"

"*Rudu-frazoowuff*."

"Yes—so they're going to classify us and the *Rudu-frazoowuff* together. They'll take one look at us and say, 'Here come more bombs.' So we'd better fly high."

THE radio presently brought in a reply from the American headquarters on Mercury. The words came fast and Gret couldn't keep up with them. Paul worked furiously, exchanging messages. Whenever he looked up he would call for more altitude. Gret complied. It seemed strange that as persuasive a person as Paul Keller couldn't allay all fear of danger among

people of his own kind with an honest word of reassurance.

"They think I am a fake," Paul said resignedly. "They don't know my voice."

"Can you not contact someone you know?"

"They've been too badly shocked . . . Here, wait . . . Here's the man I've been calling for . . . *Lessinger! This is Paul Keller. I'm in the big ship directly above Point Morezand . . . It belongs to a friend from Mogo . . . No, this is NOT an attack. Believe me, I'm no prisoner. I'm not being forced to say . . . Yes, we know about your catastrophe. We're seeking the Mogo giant who did it. Can you direct us?*"

The planet of Mercury was in a beligerent mood. Though Paul did his best to learn the extent of the damages, he did not succeed in breaking through the wall of suspicion, even with an old friend Lessinger. Lessinger informed Paul that they were watching the big Mogo boat from below, and were warning it. If it had any relief supplies, it could drop them over Point Morezand by parachute at once. Any further dallying, however, would be deemed an act of war.

"They're about to toss up a cluster of atom bombs," Paul announced. "We'd better streak for the high skies, Gret."

At that moment Gret saw, through the telescope, a fountain of several hundred tiny rockets leaping upward toward the underbelly of his ship. All four of his hands reached for the controls. The thirteen-mile boat leaped out of the path of the oncoming rockets and streaked into the high skies. A blinding white flash! Another! And another!

The Mogo boat had dodged them. It raced on through the blackness of space undisturbed.

"Where next, Paul?"

"Venus."

## CHAPTER XXXIV

ON THE the afternoon that George had rushed up to the cave to spring Plan X, Mamma Mountain and Papa Mouse sat on the top of the picnic table at the edge of the clearing, finishing their mid-

afternoon lunch. Papa insisted that if Mamma finished the big plateful of food she was holding on her lap she would break the table down. Mamma was willing to put it to a test, giving Papa a scornful eye every time she took a bite.

"See? It's all a matter of spacing your weight evenly."

"You're getting thinner," said Papa. "Worry?"

"How could it be worry? Fist-fights and tumblings over cliffs. Surly porters. Big orange eyes that come up to your cave at nights, as big as a moon. Giant hands that reach in and snatch you away. Now what could I have to worry about with a picnic like that going on?"

Mamma Mountain glanced at the overcast sky. Papa imitated her, craning his head around at the rain clouds. "According to my infra-red eyes," Papa said, "there's nothing in sight."

"Nothing? Look in the mirror, Papa, and you'll get the same result. But there's rain in sight, and the whole camp is going to get wet. And here we are with all our goods moved out of the cave, and you haven't put the tent up yet."

"Glasgow didn't have any right to move us out," Papa said gloomily. "Just because you happened to have bad dreams about giants, and wailed like a fire siren, and woke everyone up—"

"He said he needed the room for his headquarters."

"Well, I wasn't taking up any room. It was you."

"Yes, dearie."

"I could have slept in one of your shoes."

"I wouldn't have you sleeping in such a draft, dearie. If I don't get some new shoes soon—"

Papa Mouse struggled with the tent a few minutes without visible results. He was thinking of something else.

"You know what Mr. Waterfield has been saying. Over on the American side of the planet the ruins are full of everything we could want for hundreds of years to come."

"That depends upon how many of our Venus relatives come to visit us."

"Anyway, he says we should move out

of these caves—"

"We're already moving, dearie. Come on, I'll help you put up that tent before we get drenched. . . . Look, here comes that speckled wingman again, the one that helped them cut away the trees. Maybe he'll help you."

Papa was dubious. Some of the larger wingmen, two or three times his size, always looked rather menacing to him. He could imagine them, in an unguarded moment, picking him up and carrying him off. But Mamma would say, "Nonsense. They are never that desperate, either for food or for company."

THE whole camp was working fast to get itself under cover before the rain came. A dozen or more wingmen flew in from their mountainside nooks to offer their services. That had been Green Flash's challenge to them—to work themselves into the good graces of the new earth colony by doing favors. People who would have shunned and feared them back in Venus were now at least tolerating their presence. They had come by way of Gret-O-Gret's boat. He had brought several of them over from the other side of the planet—among them the skeptical ones who wanted to see whether Green Flash would succeed in being of service to the giant. They had seen. They had watched Green Flash and Purple Wings on the night that the two helped with the rescue of Paul Keller. Even Black Cloud had had to admit that that was a neat bit of heroism.

Now Papa, with the aid of the large speckled-winged fellow, was making progress with his tent when he was interrupted suddenly by a sharp startled cry from Mamma.

"Papa, what's happening at the cave?"

Several persons were running up the trail to the cliff road. Others, attracted by the excitement, dropped their spades or tossed their blueprints under canvas and followed.

"Be careful of the cliff!" one of the porters warned. "Don't crowd . . . Keep back . . ."

"What's happening?" Mamma puffed as

she and Papa joined the race.

"What was the shooting about?" one of the girls ahead of her cried.

"Shooting?" Mamma Mountain gulped. "Whooooee! I wonder if George was in on it."

As most of the camp knew, George had bounded in from an unauthorized space jaunt about an hour before, and had asked to see Glasgow at once. A porter in the valley had phoned to the cave for an appointment, and George had dashed up the hill, argued briefly with Poppendorf at the entrance, and gone on in.

"Did they get George?" someone else called. "Where's Anna Pantella?"

"Where's Anna?" Mamma echoed dizzily as she reached the top of her climb. Amid the excited shouting of questions and speculations she caught little information. Anna, someone said, had pushed in ahead of the others. Yes, George was certainly in there.

The rush suddenly jammed at the entrance. Several important people were coming out, and they were making a path through the throng without any trouble. No one disputed the right-of-way of atomic firearms. Thank goodness, Mamma thought, the good ones are running the show now. Waterfield, the doctor and one of the engineers were holding guns and directing the traffic. The traffic consisted of Garritt Glasgow and his man Poppendorf. The rest of the crowd turned to statues of curiosity.

*Glasgow and his bodyguard were being marched out of the cave!*

At the cave entrance Waterfield halted them. He saw that it would be necessary to reserve his maneuver. The rain had begun and the whole camp had dropped its tools and was surging toward the cave.

"All right, people, come on in. We'd just as well have an assembly right now," Waterfield called.

"What's up?" people yelled. "What's the matter with Glasgow?"

"We've got some ugly business to clear up. Your self-appointed dictator is going to talk. He has a few overripe confessions to make. Come into the cave, all of you. Right into the assembly room. You porters

—just check your firearms at the door and everything will be fine.”

ONE of the porters made the final mistake of reaching for his pistol. The sharp-eyed engineer cut a line of atomic fire at him, close enough to slice away the crest of his hair. The porter ducked behind someone. The engineer held his fire. Things happened too fast to be seen by most of the crowd. Mamma saw the porter jerk up with his pistol, and for an instant it looked like death for the engineer or possibly Waterfield. But a young mechanic leaped on the porter and flattened him before he could aim. The fire went wild, barely missed Papa Mouse, and caught a girl through the foot, disintegrating it. Before her scream of pain cut the air, a spurt of fire from the engineer's pistol bit through the porter's skull, killing him instantly. He was rolled to the edge of the road, the rain soaking into his black uniform.

Then there was order—as much order as there could be in the sudden downpour. Waterfield waved the crowd into the cave. A few workers were dispatched to run back and check the state of the camp under the downpour. The doctor attended the wounded girl. A few minutes later they rejoined the others in the so-called assembly room.

“Where's George Hurley?” Mamma wailed as she moved through the dimly lit passage into the assembly chamber.

“Quiet,” came the voice of Anna from a dark alcove. “Big Boy needs his sleep.” She was kneeling beside the comfortably outstretched figure.

Mamma saw that George had been fighting and had evidently fainted away. But he was breathing easily and was in good hands. When Anna mopped his face with a wet cloth he began to come to life.

In the assembly chamber everyone was accounted for. Every porter had been relieved of his weapons and had been seated conspicuously within the circle of spectators. In the center of the circle was Garritt Glasgow, ugly and hurt, and dust-smearred, making an effort to hold back the twitches of his face. Poppendorf's eyes were swelling, one was shut. The sweat

on his naked chest began to cake in black streaks. He hunched his head down between his massive shoulders. He kept scraping his heel along the floor noiselessly after Waterfield started his speech to the crowd.

“The biggest, roomiest planet in the universe wouldn't be big enough for people to live together in peace,” Waterfield said, “if some of the people were predatory murderers.”

Glasgow looked up with surly eyes. He started to hiss his defiance. It wasn't much of a hiss. It was Glasgow convicting himself before the charges had been hurled at him.

Waterfield had the facts well in hand. He went over the whole story—the real story of Paul Keller's Mogo expedition and his bout with fate. Mamma Mountain liked the way Waterfield told it. It all sounded straight and solid, and she watched Katherine Keller, her steel-blue eyes wide with surprise, making little nods unconsciously as Waterfield kept steadily progressing.

Then Waterfield pointed at Garritt Glasgow and told of the little man's criminal ambitions. Again the facts rang clear. Even some of the porters opened their eyes. One of them burst out with, “Then all this charge against Paul Keller is a damned hoax!”

“Certainly,” said Waterfield. “The doctor, the engineer and I have just had the pleasure of hearing your self-appointed dictator admit it. We set a trap for him, and he walked into it. While we listened, he did his crowing about a whole nestful of crimes—”

If it hadn't been so completely absorbing and tense, like watching a man being prepared for the electric chair, Mamma Mountain and Anna and George might have heard the very slight hiss of a small spaceship coming to a stop in the valley landing field.

When they turned simultaneously, it was the sound of footsteps in the tunnel that attracted them. At first, most of the assembled group, engrossed in the meeting, neither saw nor heard. But George saw. It was, to his vast surprise, *Madame*

*Zukor!*

It was Madame Zukor and a whole squad of gunmen! Flashing guns. Dazzling green and gold uniforms, and the breathtaking spectacle of Madame Zukor in a brilliant red cape and an emerald-studded suit.

If George Hurley hadn't been somewhat groggy from a recent fight he would probably have gotten himself killed in that moment. It would have been his impulse to leap at the nearest gun. Madame Zukor's weapon flashed silver in his eyes. A host of guns were pointed into the assembly chamber. There would be a wholesale massacre, George thought, if anyone dared resist—

His hands came up slowly, then faster. Anna's hands were up, too. And Mamma's—and when Mamma's deep throat emitted a quivering "Wooo-ah!" the assemblage turned.

**W**ATERFIELD must have paled.

George could hear it in his voice. The entrance had been left unguarded because it was thought that everyone was in. That Madame Zukor might choose this particular moment to arrive from Mars had not occurred in the slightest even to the most wary.

"All guns on the floor, gentlemen!" Madame Zukor snapped. The Glasgow forces made short work of turning the tables.

"All right, Garritt," Madame Zukor said. "My new ship is ready and waiting."

Glasgow's voice was shaky, but he managed to call the roll of those who were to come with them. The list wasn't impressive. Poppendorf, three of the porters, plus Madame's Zukor's green and gold squad of eight were all. The rest had been so obviously convinced of Glasgow's guilt, during the past few minutes, that Glasgow had already struck them off with deadly certainty.

"But I was with you, damn it!" one of the excited porters wailed. "I was with you, boss—"

"It's *Mr.* Glasgow, you traitor!" Glasgow gestured his fury by shooting, and the fire caught the luckless porter through the

belly and disintegrated half of him before everyone's eyes. "Stay where you are, the rest of you, or we'll sweep you clean."

The party of fourteen inched their way backward. When they came to the alcove that had served as Glasgow's office, some of them stood guard while others gathered together the few effects that Glasgow wished to take with him. All of the military equipment, including two wheelbarrow loads of munitions, were to be carted along.

"We'll never get down the hill with all these explosives," Poppendorf growled. "They'll be heaving rocks at us before we're twenty yards away from the cave if not sooner."

Glasgow scoffed at him. "I think we'll have brains enough to touch off the explosives at the cave door."

So that was it. They would blast the mountainside and let it avalanche down over the mouth of the cave.

"By the time any of them ever dig out," Glasgow added with a sadistic gleam, "they'll be the hungriest skeletons the earth ever saw."

The words carried past George and he heard the weird intake of breath of a half hundred terror-crazed people. The wonder was that some of them didn't break out of their paralysis and get themselves shot down.

But none of them moved. Glasgow was making his final exodus from the American colony, and he was doing it with the air of glorifying mass murder. That wild glint in his eye—George was fascinated as he watched the little dictator walking slowly backward, his sister beside him, the two of them directing every step of the twelve persons following them. They were almost out. They were even with the alcove that had once served as Paul Keller's prison.

Swish!

Whiz!

Down from the stone ceiling it came—a tawny form with green wings flashing. Lightning from the storm flared through the cave entrance, and George's eyes caught the picture. Green Flash. He leaped out of hiding. He pounced upon Glasgow.

A SHORT scream from Madame Zukor. She reached for her brother's hand. It jerked away from her. Glasgow was being flown out into the rain. Before the first gun flashed, the lightning flare showed the wingman and his victim darting over the cliff.

Then the guns blazed fast. Rapid fire streaked out into the storm. Highlights on puffs of clouds. The rattle of stones splintering under the disintegrating rays. Grick-k-k-k-k! Thunk! Thunk!—the pounding of big rocks chopped loose from the cliff's edge by the slicing gunfire. The wingman and Glasgow *must* be down there somewhere. "*Careful with that fire—try to head them off—but above all else be careful!*"

Madame Zukor might have saved her breath. The wild spraying of gunfire was quite futile—a mad expression of chaos within the party of fourteen—no, thirteen. Glasgow was definitely gone.

Waterfield and George and the rest of the assemblage came down the tunnel with a rush. The moment of chaos gave them their chance. The party of thirteen quickly diminished to ten—ten prisoners, crouched in the rain in the dead-end corner of the cliff road just beyond the cavern entrance. Three had been pushed over the edge. It was a fall from which there was no returning.

Through the rain, the whole terrorized earth colony moved slowly down the slope toward the valley landing. Six blasts of explosives on the cliff road temporarily blocked the route of escape for the cornered party of ten. Madame Zukor, Poppendorf, and their eight gunless gunmen could go back into the cave for the night if they wanted to. Or they could stand out on the cliff road and bellow for Glasgow. But they couldn't get down—not unless they first spent many hours removing a dangerous avalanche of rocks.

"The Venus Express will be here in the morning," Waterfield said. "With it and George's ship and Madame Zukor's boat from Mars, it won't take us long to move, bag and baggage, to the other side of the planet. We'll make sure that all incoming interplanetary traffic lands there instead of

here. Are we all in favor?"

The move, long considered, met with unanimous approval. It was also agreed that they should leave the stranded Glasgow party and the wingmen to survive as best they might. Everyone knew that the wingmen wouldn't have any trouble surviving. And since there were some food supplies in the cave, the Glasgow party could remain exiled without facing immediate starvation. The plan was not cruel, in view of the Glasgow crimes, it was merciful.

"*We're through with Glasgow!*" Mamma Mountain chanted, as she loaded herself into George Hurley's ship. "*We're through with Glasgow!*"

George felt vague uncertainties about her elation. He would have liked another chance to punch Poppendorf in the nose. And he'd have liked to see Glasgow ground up into Glasgowsburgers and fried crisp for the wingmen. But at least all trouble was about to be left far behind. It was a good song that Mamma Mountain, Anna and the others were singing, and George joined in.

## CHAPTER XXXV

ON THE American side of the continent the new earth got off to a vigorous start. The Venus boat brought a desirable addition to the earth's population. Panic-stricken persons set into motion by the Mercury disaster had not been able to gain passage. These newcomers were persons who had made reservations earlier, who were coming because of a sincere interest in giving the earth a fresh start. Before the population had swelled to three thousand, an efficient committee of fifteen had gone into service as the governing body.

"We're doing very well without Glasgow!" the citizens would remind each other jubilantly.

"What happened to him?" the newcomers would ask.

"First he was carried away by his own power, and later by a husky wingman."

"Is he still alive?"

"No one knows. No one cares, as long as he's on the other side of the world."

Exile, then, was to be the fate of Glasgow and his inner circle. To insure that the exile would be permanent, George and Katherine and the governing committee made it a point to bring all incoming traffic to the American continent. Banrab, as a landing place, passed out of existence.

One trip back to Banrab was made at the request of some wingmen. Several of those who had remained at the camp on the American side were fascinated by the reports of jagged mountains and labyrinthine caves. They were uneasy without the leadership of Green Flash and wished to go to him.

Accordingly, the Venus Express accommodated them and took all who wanted to go, dumping them high above the Banrab Valley. The few Venus bound passengers looked down with vast curiosity, knowing that somewhere among the mysterious blue mountains a few earth men, who once moved through the luxurious palaces of every fine space port in the solar system, had been left in the company of the winged cave dwellers.

But no tears were wasted. Banrab had passed out of existence. The first official maps of the new earth bore no markings of Banrab. The landing spots on the American continent where Gret-O-Gret's hands had scrapped the uneven terrain smooth were the new centers of earth's civilization.

George had once planned to fly to Mercury to see the effects of the second crushing blow of Mogo ruthlessness. This ambition was set aside in favor of more pressing duties. There were many voyages to be made to Mars and Venus in connection with the earth's new diplomatic responsibilities. And there was always the task of guarding the skies.

Incoming traffic had to be directed with utmost care. Privateers might have come in their own boats and set up their own outposts, friendly or otherwise, if precautions had not been taken. It was particularly important to the new earth that no un-cooperative groups be allowed to set up their own empires. For this reason, the American embassies on both Mars and Venus, and later Mercury, as well, were appealed to. The established government

on the new earth was out to win respect for itself.

AMONG the original settlers who had gone through the bad days at Banrab, there were a few who tried to surround themselves with an aura of aristocracy. They were the *new earth's first* settlers. As soon as the newspapers made their appearance, however, the myth of firstness became a mild joke. It was, after all, quite an accident that certain persons had come on the first Venus excursion to the earth after the disaster. The accident hardly entitled them to consider themselves superior stock. Fortunately for Anna, she was a person of a frank and honest nature, with so little 'sham about her that the glory of being the one person the earth's blasts had spared did not go to her head. She would laugh at all jibes and always admit that it was a freakish bit of luck that she was alive; but she refused to take on the airs of being made of special clay.

It could not be denied that the original settlers at Banrab *had* gone through something of an experience that no later group would ever know. Nor would they easily forget the dream of a little spaceport village nestling in the shadow of the black mountains. They cherished their memories with sentimental fondness, and a few were heartbroken during the first weeks after the move. No one had thought to bring along any of the charts on blueprints.

"We didn't have time," was the well remembered reason. The opening had come, quite suddenly, to shake the dust of Glasgow off their feet, and they had moved without stopping to collect any trifling souvenirs. Would anyone ever find the blue-prints of papers left under the canvas on that rainy night? Worthless documents now. Nobody suggested that busy space pilots should take time to go back and get them.

Between trips, George would seek out Anna, who had attached herself to Katherine Keller as a devoted assistant. The committee of fifteen had made Katherine a member at the request of Anna.

"Katherine Keller has been everywhere



and seen everything," Anna announced, when the committee membership was being decided upon. "So I am going to yield my place, which Judge Lagnese wished on me, to Katherine. It's the least I can do to help give this country a good government."

Someone suggested that Anna might have a place anyway. But she refused. It was her solid belief that you shouldn't hold such a responsibility just because people want to honor you; that your good will doesn't in the least qualify you to make your own rules.

"If the earth hadn't been blasted, I would still be in school, studying history and politics, and probably complaining that I couldn't get such things through my head," she said candidly. "If I tried to hold down a place on the committee, I'd have to puff myself up like a bullfrog. Now if it were my brother on Venus—um—now there's a genius."

George explained for the benefit of the group that her brother on Venus knew everything there was to know. Someone suggested that her brother, then, should be placed on the committee.

"Unfortunately," Anna said, "my brother on Venus is on Venus."

Anna's gracious act lifted Katherine to one of the highest honors in the land and at the same time added to Anna's own popularity. George was secretly wondering if she wasn't becoming much too popular.

It worried him. It worried him that such a thing should worry him. Did it mean that he had fallen in love with her and was afraid to admit it to himself? At such times he would recall his fanciful one-time affection for a myth named Judy—a very wonderful girl, he was sure, though he had never really known her. It had been easy to believe that if she had lived, they might have been the New Earth's happiest couple. There was still a slight wound from that memory, just enough to screen from him his desire for a real romance.

ONE evening he found Anna busily sketching. He had just walked into the writing room of the New Earth Hotel,

an old building that had been cleared of debris for temporary use. The engineers hadn't gotten around to patching the windows or wall, so that an opening admitted sunlight and made the writing balcony a part of the outdoors. The light shone in upon Anna's hair and gave it the coppery cast of his space ship. For the first time George thought of her as beautiful. She started to hide her work when she saw George approaching.

"Come on, Pantella, no secrets. You can't hide anything from us space pilots, you know."

Anna made a pretense of carrying on some dire underground plan.

"Seal your lips, Inspector, and I'll cut you in on the take . . . ah, what wouldn't I give to see an oldtime earth movie!"

"Homesick for the past, are you?"

"Well, just a mite."

George lifted her hand from the papers and saw what she had been doing. It had nothing to do with the oldtime earth, but here was evidence of homesickness of a sort, no question about it. She had been trying to reconstruct, from memory, the plan of the proposed Banrab village.

"Come on, Pantella. We're taking an evening ride, and maybe we won't be back till morning. Nobody will miss us until breakfast."

"You and I? I thought you'd forgotten I existed, Big Boy. Where are we going?"

"After a few lost blueprints."

There was a moon to be seen if one swung a wide parabola through the heavens, and George was in the mood and Anna was willing.

It was pink dawn between the blue mountain ridges of Banrab when they landed.

## CHAPTER XXXVI

THE place looked deserted. Through the telescope it had been impossible to see any details of the cave entrance as they approached because of the early morning mist. And Anna was a bit goggle-eyed, anyhow, George observed.

"Two of us," Anna said, smiling dreamily.

During the recent hours of flight they had kissed, and time had stood still, and the little space flivver had found its way back to the Banrab camp as if by some homing instinct.

They landed. The deserted settlement was like a mining camp or government project that had stopped before it had started.

They walked out across the clearing, hand in hand. The air was fragrant. Life was full of new horizons. The old troubles of Banrab had faded into memory. George was filled with the thought that he and Anna were in love, and George suspected that Anna had known it for a long time. This morning love was his world, and he was saying things he had never said before.

A wingman swooped over and alighted on the nose of George's ship. He was a bronzed, muscular figure, naked except for a loin cloth of green, reminiscent of certain green and gold uniforms.

The wingman called out, as squawkily as any bird of prey anticipating a good meal, "Same boat, same people." Then he laughed and said it again. "Same boat, same people." Wherewith, he flew back over the treetops into the blue shadowed rocks.

"Impertinent!" Anna said. "Reminds me of my brother's parrot."

So the wingmen were still in possession! Those Gret had brought and the others which had been dropped later by the Venus Express had found this home to their liking and had stuck.

And why not? The provisions that had been left were enough to make them comfortable while they explored the countryside for other resources.

"I wonder if Green Flash is still here."

George's question was answered as he spoke. From a high shoulder of the mountain a male and a female came on outspread wings, soaring downward in slow spirals until they alighted on a weather-beaten picnic table. Green Flash and Purple Wings! Two superb physical specimens, George thought—and with an endowment of native intelligence that humans had learned to respect.

They also wore abbreviated costumes that had come from the uniforms of Madame Zukor's gunmen.

"I wonder what the gunmen are wearing," Anna whispered. "Maybe a coat of dust over their clean bones?"

George called, "Hello, there! ... Hello, there, friends."

The manner of the winged couple was distinctly strained. Not as frank or cordial as George wished. At first they talked only to each other, though their words were for George's and Anna's benefit.

"These strangers should not be here," Purple Wings said.

"They will go soon," Green Flash replied. "If they knew of the danger they would go at once."

George called, "What's the danger, Green Flash? Don't you remember that I'm a friend of Paul Keller? You and Paul and I once helped the giant when he was sick. And Anna—don't you remember Anna?"

The two winged folks walked around slowly, watching, uncertain, apparently worried. Then Green Flash spoke very directly.

"Our flock has gone back to its more primitive life, Hurley. You must understand. When we are living free among the crags we can revert swiftly. Purple Wings and I could not prevent it. Do you see?"

"We understand," Anna said.

"But some of your ways we remember well," Green Flash went on. "I have taught our flock to make their decisions by voting, not fighting."

"Remarkable!" George said under his breath. The wingmen couldn't have departed too far from earth men's best lessons if they maintained some sort of democratic practices. Voting. That implied free discussions and a chance for each wingman to think out and make his own decisions.

"Another lesson we have retained," said Green Flash, now with curious question marks glinting from his eyes, "is the idea of a hospital."

"A hospital? Are many of you ill?"

"No, we are not ill. We are fine."

"But a hospital?"

"A hospital for the wingless ones you left with us when you blocked the cliff road on that rainy night. Those prisoners are now patients in the hospital."

**G**EORGE and Anna looked at each other. It took a moment for this strange information to soak in. Until now they had hardly dared ask themselves what might have become of the old Glasgow gang.

"They are all in the cave, in their separate cells, behind bars," said Green Flash. "They are well fed and well treated."

Purple Wings added with a faint smile, "We are keeping them for observation."

"Oh. Uh—yes, I see. A hospital—well. What of Glasgow? Was he killed that night you flew off with him? We were afraid you would be killed."

"Thank you," Green Flash gave a little bow. He was warming toward them. "No, Glasgow was not killed. He is our model patient."

Purple Wings was smiling. "We observe him more than anyone. Our doctors are trying to determine whether he is *morally responsible*."

Green Flash glanced to the mountains and again the worried look was in his eyes. "You will go soon?"

"Very soon," George promised.

"How soon?"

"As soon as we have picked up a few things we left."

"Very well. A smooth take-off to you and many pleasant journeys."

Purple Wings looked from Anna to George as if she had read something interesting in the way they were holding hands. She echoed, "Many pleasant journeys."

Then the winged couple sprang into the air and flew on their way up the mist-filled valley.

George consulted his watch. Anna started to move cautiously up the mountainside trail. They were both curious to see the barrier of loose rocks that had been left by the explosion on the cliff road. The blue mist hung close and they had to climb higher than they intended. At last they could see where the cave en-

trance used to be. Other blasts had taken place since that violent night. The whole cavern front had been dynamited and sealed shut by the resulting avalanche.

"If Green Flash was telling the truth, the 'hospital' must have a different entrance," George observed.

Anna remembered. "That break in the ceiling beyond the assembly room—remember? You could look up and see the sky at night, and at high noon a streak of sunlight shone through."

"Sure; that's the answer," said George. "The wingmen can fly in and out, but no earth person would be able to climb it."

"It's like my Sunday School teacher used to say when she talked about angels," Anna giggled. "There's lots of advantages to having wings."

"We'd better go back, like Green Flash said."

"We'd better," said Anna.

George stopped, and his eyes followed a natural ascent that the mountainside afforded. Anna was looking at him questioningly.

"You know," she said, "some folks couldn't do what we're doing now."

"You mean—"

"Make a decision to come away, when it would be so easy to climb a few steps and look down into the strangest hospital in the solar system."

"I wonder what it's like?"

"If it were only night, so we'd be sure it was safe—"

They looked around cautiously. George noted that Anna had brought her pistol along with her.

"Do you suppose they still have Madame Zukor in there?" Anna said. "What that did to some soft-hearted people! Some folks were horrified when they heard."

"They don't know Madame Zukor. The wingmen are welcome to her, as far as I'm concerned. In some way she was more deadly than her brother."

"Cleverer."

"You suppose she gets bread and water?"

"I wonder whether she's still wearing her jewels and flashy clothes."

Thin, misty clouds skirted along the mountainside. The sun was going to come

out full soon, but at the moment George and Anna felt secure. They were temporarily screened from the view of any eyes up or down the valley.

THEY took several more cautious steps up the natural passageway among the jutting stones. Anna looked toward the valley. The ship couldn't be seen from here.

"I locked it," George said.

They edged along more confidently now. There was no sign of life about. The climb was perilous, but George, for all his two hundred and thirty pounds, was sure of step, and when it came to helping Anna his good muscles were there.

"That skylight should be right over this way," she said. "S-s-sh. Be quiet, now. This should be it. Yes—no, it must be farther over—"

"This way," said George.

"*This way!*" a wingman squawked, bobbing up out of a crevice.

George whirled, reaching for his pistol. One lone wingman? His first thought was a false jump at conclusions. There were six wingmen, spinning up out of a crevice, a veritable geyser of wings.

*Flash.* The play of gunfire whizzed past George's hand. He took the hint. His pistol clattered to the rocks. Anna, too, had made a futile gesture toward her weapon. No spoken orders were needed to persuade her to drop it in time to save her fingers.

"*This way, if you are ready to enter,*" the first wingman said.

George looked the six of them over and knew it was number one he had seen before. He thought of Purple Wings and Green Flash. If they were here they could clear up this little skirmish in a minute. But number one didn't look at all friendly. He was the fellow George had once tackled in the doorway of the wingman hospital on Venus.

"Step in," the wingman ordered, cocking his head toward the opening in the rocks. "We were told you would come sooner or later."

"This is a mistake," Anna said. "You don't know us."

"There'll be plenty of time to get acquainted. Will you slide down the rope peaceably or shall we push you in?"

George gulped. "How deep is it?"

He gave Anna a wink. He couldn't quite make up his mind to letting himself be taken so easily. Maybe they could bluff the winged boys out of it.

"Any cushions to land on?" Anna asked.

The first wingman moved toward George. His gun looked less inviting than a red hot poker. George moved back, his fists doubled. A short, blunt-winged, grizzled old wingman was the one who took advantage of the situation. He came up at one side, leaped forward, and punched George on the jaw. George's arms swung out wide, like a double haymaker in reverse. The grizzled shorty must have liked the effect, for he swung on George again. He carried a hard wallop. George felt a tremble of weakness coast down his spine. He couldn't fight back. If he made a false move they'd burn a hole through his heart.

FIVE blows. George grew groggy. He could hear Anna catching her voice to keep from screaming. The other wingmen bounced in on him with ropes. One of them yanked at Anna's hair and slapped her across the cheek. In a moment they were both tied, hand and foot. They went down fighting, so to speak, for they were still jerking and kicking when the six wingmen lowered them through the "skylight."

"Green Flash!" Anna cried out, and her voice took on weird echoes as she descended. "Green Flash! . . . Purple Wings! . . . Where are you?"

It took two days of debate among the assembled wingmen to come to bring about a decision. From their alcove a few yards from the old assembly chamber, George and Anna could hear fragments of the debate. Green Flash and Purple Wings defended them to the last—until, as George realized, their own standing in the group was endangered by their radical arguments. They pleaded for tolerance, for mercy, for judging individuals each upon his own merits.

But in the end they lost. The trifling

crimes for which some of the wingmen on Venus had once been incarcerated were no more serious than Anna's and George's trespassing—and who could prove that the couple had not come to release the other prisoners?

"It is very bad news for you two," Green Flash said. He bent down and examined their wrists and ankles where their bonds cut into their flesh. "We'll have two cells for you before the day passes. You will at least be more comfortable."

"Green Flash!" George gasped. "You're not going to let them get away with this. After all you've told them about our virtues, you're not going to stand by and allow us to waste our lives away in a cage, are you?"

Green Flash shook his head solemnly. "It is *so* hard to understand when the tables are turned. But I am bound by the code of my people."

"You could help us slip away some night. They'd never know."

"Would that not be a dastardly crime against my own people?" Green Flash replied.

"Some day," said Purple Wings, with a hint of irony, "some Venus wingmen may ask for earth men to commit some murders for them, and if they choose you and ask to have you released for that purpose, the hospital might yield its hold on you."

So that was that. When food was finally brought, George was unable to eat. Anna, having fallen into a half sleep, awakened to eat moodily. Later, George noticed that she was studying him with a glint of curiosity.

"What is it, Big Boy?"

"Huh?"

"I thought I saw the light of an idea in your eye. What is it? Escape?"

"If there was any way to escape this devilish place, Glasgow and Madame Zukor and their muscle men would have found it out before this."

"What's your idea, then?"

"Simply this. We may be here the rest of our lives."

"The camp will miss us. They'll send out a search party."

"We didn't tell anyone where we were

going. They'll be more likely to search Mars and Venus than Banrab. It may be years—it may be the rest of our lives."

Anna nestled against his arm. "I know it, Big Boy. I've already thought out all the pessimistic angles, and there aren't any other kind."

"So—"

"So?"

"Green Flash!" George called.

The winged leader came with a restrained step, as if already braced against doing them any favors.

"What is it now, Hurley?"

"Green Flash," George's voice was tight with anxiety. "Will you—can you perform some sort of ceremony for Anna and me?"

"Ceremony?"

"Say a few words over us, with Purple Wings as a witness. Tell us that from now on we are to be husband and wife—and then—only one cell for the two of us. Please. Am I right, Anna?"

For an answer she snuggled closer to his arm.

## CHAPTER XXXVII

**B**EFORE George and Anna (Mr. and Mrs. Hurley, according to the sign they had scratched on the wall of their cell) had been prisoners of Banrab many weeks they realized that there was a plan of escape in the air. But not for them. They didn't know the right wingmen. Unfortunately, knowing the right wingmen wasn't something that could be acquired overnight. It couldn't be achieved by saying the right words or making the right promises.

There were only two persons included in the escape plan—Madame Zukor and the one-time bodyguard, Poppendorf.

By some wiles (George and Anna were a bit hazy on the details) Madame Zukor had won for herself an "in" with a wingman who was willing to exchange favors.

And so, on one very stormy night, amid the clatter of rain and the roar of thunder, Madame Zukor and Poppendorf were swiftly hoisted out of the rocky pit, their half clad bodies showing briefly under the

flare of lightning from the skylight, rain pouring down over them.

And what of Glasgow? He must have caught a glimpse of them escaping. He shouted and roared and bellowed, doing his best to wake up the winged powers in time to stop the runaway pair. It was one of the few times that George heard his voice, for the little ex-dictator occupied a cell somewhere on the other side of the assembly chamber.

Within a few days after the escape, the fuller story went the rounds. George and Anna learned that Madame Zukor had tried to reconcile her brother to her plan. She had argued that it would not be possible for more than two persons to escape. She and Poppendorf should be the two. They would be able to do more on the outside, for Glasgow's eventual benefit (they had said), if they went and he stayed. To this argument Glasgow had ground his teeth like the trapped and hungry animal he was. But Madame Zukor had been clever enough to carry her point.

Now Glasgow openly vowed that he would also escape and return later and personally burn the damned feathers off every wingman in the camp. The wingmen guffawed when they heard it. They would fly in from the outside, concealing handfuls of mud, and would start him off with a question, and when he would open his mouth to make his boasts, they would plaster him.

Much as George hated him, he was occasionally moved to pity. Glasgow still held in his mind some fantastic faith that if Katherine Keller were free from her husband, she would come and rescue him. In pursuance of this mad fancy, Glasgow succeeded in delivering a note through the hospital to George's and Anna's cell. It was written on a scrap of white cardboard in which some food supplies had been wrapped, scratched with muddy ink.

"His prisoner's song," George remarked.

"He's in the wrong key," said Anna. "The only thing right about it is the bars."

The note begged them to promise that if they ever chanced to escape, they would be merciful to him, a poor, heartbroken man of tragedy, always misunderstood. If

they only knew how he grieved over all the evil he had ever done they would forgive all. And would they please inform Katherine Keller of his plight? He was sure she would have him removed from this deadly hole. If so, he would spend the rest of his days making amends.

GEORGE and Anna applied their sense of humor to the message. Nevertheless, they lost several nights of sleep over it. Everything seemed to strike deep and serious, now that there was only the gloom of the cavern walls about them and the unfriendly rustle of wings. Should they make any reply whatsoever to Glasgow?

In the end they decided to ignore the message, hoping he would never know they had received it. They would be safer never to get mixed up with him again in any way.

"I can still see him in the Mogo giant's ship, imprisoned behind that screen, whining his innocent appeal to us to set him free," Anna said. "His begging will never ring the bell with me."

Among several prisoners the passion to escape was aroused to fever pitch shortly after Madame Zukor's successful exodus. The wingmen accused each other of conspiring with the escapees. There were knock-down, drag-out fights for several days, and eventually the guilty wingman paid for his deed with his life.

"Green Flash knew what he was doing when he refused to conspire with us," Anna decided. "Thank goodness, he and Purple Wings weren't mixed up in all this."

"They must live somewhere away from the cave," George decided. He consulted his calendar of scratch marks on the wall. "We haven't seen either of them for nearly two months."

"Time, time!" Anna sighed. She looked around the walls as if wondering whether they might all be filled, eventually, with scratch-marks of days and months and years.

It took much time to accomplish anything under prison conditions. George tried to reassure himself that Madame Zukor and Poppendorf, upon escaping, had no choice other than to hike through the valley, hiding daytimes and journeying nights.

They would have to travel apart, at least until they came upon some half buried African town where they could dig some workable car or plane out of the ruins. They would *not*, he told himself over and over, have been able to make off with his space flivver. He was sure, because he knew where the wingmen had stored his valuables—among them the key to his ship.

Still, he could not be one hundred per cent certain—not unless some wingman would assure him his key was still there.

One day when he thought his good behavior might merit a favor, he asked to see the stack of valuables they had taken from him. The answer was—no—not a simple no, but a very suspicious one.

"You lost ground on that effort, Big Boy," Anna observed. "We'll have to use something more subtle."

"I wish Green Flash would come by sometime. He'd tell me."

Green Flash, however, was no longer coming to the cave. No use wishing. The time-consuming business of devising a trick was the only thing—some strategy that would lead one of the wingmen to reveal, inadvertently, whether the key was still there.

Several weeks passed before the trick finally worked.

George quivered like a thief about to be caught red-handed. At last the desired information was revealed.

*The key was not there.*

In its place was one of Madame Zukor's jewels. So that was that.

"She and Poppendorf are out in the cosmos somewhere, Big Boy," Anna said, shaking her head apathetically. "Probably skimming cream off the Milky Way."

## CHAPTER XXXVIII

THE colony in America under Waterfield was thriving. The city—that is, the *people* who formed it—were coming to feel comfortable within the partially renovated ruins of a former city. Goods and equipment were available. A few transportation lines ran out to neighboring ghost cities, so that the original settlement be-

came a sprawling, spider-shaped organism.

The wingmen who had remained at their American camp began to work into the economic life. Though they continued to live in their hill camps and dress in their native fashion, they took jobs as messengers and errand boys. Those who proved themselves exceptionally reliable were engaged as mail carriers. For the first time in Venus-earth history a blended social and economic order of wings and non-wings came into being.

The new newspaper, printed on a press that had once rolled out hundreds of thousands of copies daily, boasted an initial circulation of five hundred. After the Venus Express and Mars Flyer had taken sample copies back to their respective capitol, the circulation quickly jumped to five thousand.

Then came the headline news that Anna and George were missing, and the circulation doubled and tripled.

Had anyone on any of the neighboring planets seen George and Anna? Their pictures and a description of the coppery space flivver filled newspapers from the underground cities of Mercury to the floating space station halfway to Jupiter. A honeymoon was hinted. A crack-up was feared.

Gradually the Hurley-Pantella stories slipped from page one to page two and on back to page ten. (The *New Earth* now boasted twelve pages.) It jumped back to page one occasionally, such as when an errant space ship, coming in from Mars, passed over the now legendary Banrab camp and looked for signs of the lost couple. There was not only no ship to be seen in the valley flat, there was no cave to be seen. The entrance, an observer reported, had avalanched over.

Time marched on. The committee worked efficiently. A public service department flooded the solar world with nerve-soothing assurances that Mogo's man-monster, Gret-O-Gret, had never dealt any harm to any planet—rather, he was last seen chasing the mischief-maker across the universe of space. As the facts sifted down through the welter of false rumors, Paul and Katherine began to emerge as the

heroes they were.

This trend in interplanetary heroes was dealt a jarring blow by the news, not headlined but loudly rumored, that Madame Zukor was visiting in Mars.

"Wasn't she one of those who was left at Banrab?"

"I thought she fell over the cliff."

"I distinctly remember that a wingman carried her off—with lust in his eye."

"You are all quite mistaken. She was left standing there in the rain with her uniformed gunmen," was Katherine Keller's response to these rumors. "Someone may have rescued the whole outfit. She and her brother are probably basking in the sunshine of some Martian court."

A letter reached Katherine by the next Mars Flyer. She opened it with trembling fingers, hoping it might be a word, at last, from her wandering husband.

"From Madame Zukor!" she exclaimed with bitter disappointment and dropped the letter and sank into a chair.

Mamma Mountain started to pick it up for her, but Papa Mouse was quicker. The two of them pored over it while Katherine sat, statue-like.

"She is in Mars, all right," Mamma said. Then with a gulp, "Oh-oh, she's coming to see you."

Madame Zukor arrived in her own space ship—a flivver built on the lines of one well remembered copper-lined boat. This craft looked new and was coated with the deep red metal of Mercury. Her pilot, according to Papa Mouse's passing glimpse from the cab top of a fueling truck, was a big-jawed, high-shouldered fellow who must have been the same Poppendorf—sporting a new black moustache and wearing dark glasses.

THE pilot did not accompany Madame Zukor when she entered the New Earth lobby and asked the clerk for Katherine Keller.

Katherine, sitting at a writing desk on the fresh air balcony, saw her enter—a sort of walking jewelry store—and asked the winged bellboy to show her up.

He sailed down over the balcony obediently and alighted beside her. She jumped.

Her hand dived into her pocketbook as she whirled. She must have thought a whole squad of wingmen were closing in on her.

"Oh! You're the bellboy?"

He delivered the message. Regaining her composure, she walked up the stairs and came along the balcony toward Katherine.

"I don't know whether you remember me, Mrs. Keller," she began. "We met under unfortunate circumstances. I am Madame Zukor—"

"The sister of Garritt Glasgow," Katherine said.

"Yes. One can't always help the caprices of Nature, can one? Garritt was always a problem child—grasping and domineering—"

"Maybe the trait runs in the family," Katherine said. The chill of hatred was tightening her lips. "What do you want here?"

"I have come to offer my services to the new earth. I have money and influence on Mars. Although the space ship which I once owned was stolen from me at Banrab—"

"The night you and your army walked in on our court—"

"Although my ship was stolen, I have procured another," Madame Zukor said, ignoring Katherine's reference to unpleasantness. "Therefore I am in an excellent position to carry on diplomatic services for you."

"You're a bold one, aren't you! Don't you know that you'll be arrested and probably convicted for that job you attempted at Banrab?"

"I hardly think so."

"What makes you think otherwise?"

"The way you left me at Banrab. Your new earth is not operating with much dignity, if you'll pardon my saying so. You are on the committee, aren't you?"

"If I were you, I'd be careful how I talked," Katherine flashed.

"I was never given a chance to explain my Banrab actions in court or in public," Madame Zukor said. "You may be misjudging me as badly as my evil brother caused people to misjudge Paul Keller."

Katherine wished that Paul were here



now. In spite of his slow wits he might have his own ways of dealing with this brass.

"You left me at the Banrab cave to starve and die," said Madame Zukor, and now her dark eyes were blazing fire, not shifting, like Garritt Glasgow's, but steady and penetrating. She had taken a seat at the opposite side of the small table. "That kind of treatment doesn't add prestige to the government of the new earth."

"What do you want me to do about it?"

"See that I am appointed the new earth's ambassador to Mars."

"That will never happen," said Katherine coldly. How could she be so brazen as to imagine she'd stand a chance!

"Then you may feel the ill will of Mars before you're prepared."

"A nice piece of blackmail, Madame Zukor," said Katherine, rising. "If you want to clear yourself with me and with the committee of the new earth, you'll have to do the same thing Paul wanted to do when he was in deep."

"Meaning what?"

"You'll have to stand trial. If you come out of it with a clean record—if you're clever enough to squirm out of all you've done—all power to you! Win any government post for yourself that you can."

"I'll do it," said Madame Zukor with a mysterious look of satisfaction in her smile.

"And if any others of your party came back from Banrab, the same goes for them."

Madame Zukor gave a little bow. "My friend Poppendorf is with me."

"And Glasgow?" Katherine asked.

"Still starving in the Banrab prison, where he belongs, as far as I know. Very well, I'll engage a suite and become a resident of this fair city until the courts of the new land have had their chance at me."

Katherine watched her as she swaggered toward the stairs, as confidently as if she already had the committee of the new earth in the palm of her hand.

"One question, please," Katherine called after her.

"Yes?"

"Do you remember George Hurley and Anna Pantella?"

A slight look of uncertainty crossed her features. "Y-yes, vaguely. Why?"

"They disappeared several months ago."

"I don't know anything about them."

"You haven't heard anything of them, either at Banrab or at Mars?"

"Certainly not."

"Or their ship?"

"Why should I know anything about their ship?" Madame Zukor was definitely annoyed.

"Very well," said Katherine. "I'll call for you when the committee is ready to see you."

## CHAPTER XXXVIII

PAUL KELLER, riding the heavens with the giant Gret-O-Gret, could not remember that he had ever been away from the company of earth men so long before. The months were passing, and Gret-O-Gret was still roving back and forth through the space of the solar system.

It was not aimless roving, however. After a few weeks Paul had realized that Gret had picked up the trail he was after. Yes, Mox-O-Mox was ahead of them, steering through the skies on a zigzag course. Around Mars, up through the black space toward the earth . . . around the earth and on toward Venus . . . high over Venus and outward toward the space island that the interplanetary fliers maintained on their course to Jupiter. High over Jupiter and many times around its equator . . .

Around and around . . . back toward the earth again . . . Back to Mercury, with curious twists and turns over the line of light that divided its two hemispheres.

Gret's boat was following automatically. A radar device enabled him to stay on the course of Mox's strange peregrinations. He kept about the same distance behind all the time. Paul would awaken with the sensation that the ship was stopping. He would look up to see the immense form of Gret moving toward the telescopes.

"Mox can't make up his mind where to go next," Gret would say.

For a time Paul thought that Gret would explain to him just why he didn't rush

ahead at such opportunities and engage Mox in a battle. Paul couldn't help wondering how the two ships would compare if they were ever to lock horns in a space fight. The nature of Gret, Paul decided, was the factor that prevented such an open attack. Gret had once clashed with Mox in a contest of fists. It was not that Gret was afraid of a fight. It was rather that he was holding off for some more adequate plan.

"I would like you and your people to know," Gret said one time when they were watching Mox through the telescope, "that there is a difference in Mogo giants. Some have the virtues of your own leaders. Others have the criminal qualities of your Glasgows."

So that was the answer. Paul knew that some plan was forming, and that he would have to wait until Gret saw the chance to spring it.

"Sing to me again," Gret would say.

Such an odd way to entertain a giant. The endless hours were spent in many forms of entertainment, and Gret's own favorite pastime was his work in chemicals. He had opened box after box of supplies and had turned the place into a laboratory of such smells and sights and sounds as Paul had never seen before. But after long hours of experimenting were over, Gret would say, "*Sing to me.*"

Later. "Can you sing some words in *my* language? Let me teach you a *Mogo song.*"

And Paul, smiling to himself, would sing in Mogo.

Again the ship of Mox moving through space, surveying the moons of planets and sometimes almost venturing to land, then turning away again.

"Do you think he knows we are in the same heavens with him?" Paul would ask.

Gret thought not. Through the telescope the boat of Mox was never more than a speck. Unless Mox had systematically searched the skies for a pursuer he wouldn't have detected their presence. The only indication he gave of being aware of any other life besides his own among the family of planets was when he would ride too close to one of the inhabited surfaces and would be greeted by a spray of jet-pro-

pelled atomic bombs. The skies were on their guard against him. He wasn't daring to try his earth blasts again.

"He might have run out of bombs," Paul suggested. "He didn't do a very thorough job on Mercury."

"He quit early on Mercury," Gret agreed. "Nevertheless, I think he is holding off now because he is afraid. If he were out of bombs he could at least skim the planet and fire with his guns. This would give him the same pleasure of destroying 'insects' and damaging his newly discovered world."

"Do you think he might, in time, see enough of our people that he would come to respect them?"

"NOT Mox," said Gret. "There is a difference in Mogo men. Mox-O-Mox will always destroy . . . *Sing to me, Paul . . . Ah . . . Let me try your voice through this instrument. . . . Now, the two love songs, please, in your best Mogo dialect . . . Your Mogo is improving, Paul—but you can put more feeling into it? They are love songs, you know.*"

I am not singing to entertain him, Paul thought, I'm practicing for something he wants me to perform. This is a part of his plan . . .

The other part of Gret's plan had something to do with the different shades of smoke that rolled out of Gret's tubes in his laboratory. Grey smokes, brown smokes, blue, gold, white, pink . . .

Sometimes the air would be a veritable artist's fantasy of colors, and Paul, catching a whiff of some new product, would reel and faint away before Gret could pick him up and place him in his oxygen chest. From the ruins of his own ship, now stored among Gret's laboratory trinkets, Paul secured his old oxygen suit. Once he got into it and fastened it securely, he was safe from the laboratory fumes, and could sleep in comfort while Gret went on experimenting to his heart's content.

In his sleep he would mumble Mogo words. The language fascinated him, and Gret had been drilling him regularly, of late.

"Wake up, Paul!" came the giant's light

whisper. "We are moving toward the earth again."

"You mean Mox is—"

"He's closing in on the only planet that has no military protection to ward him off. He may think of striking again. Here. Keep this instrument in front of the microphone as you talk to me. Are you in the mood to sing? . . . *Sing*, then, as you never sang before! *Love songs*, Paul . . . Then I will tell you what to do next . . ."

## CHAPTER XXXIX

IN THE New Earth hotel everyone was crowding around the radio to get in on the excitement. They had called Katherine. She had been around many worlds—maybe she would know what kind of language it was, bouncing through the airwaves with such thundering volume.

"It's *Mogo* language!" Katherine said. She was pale. She had been awakened out of her midnight slumbers. As always, sudden news of any sort frightened her. In all these months she had had no word of Paul. "It's a *Mogo* song—it's—*it's PAUL! PAUL!*"

They tried to hush her half-terrorized outcry. The weird sounds came again—a melody that was unearthly—words that were a jumble to untrained ears.

"Get me a space ship," Katherine ordered. "Someone take me up—"

At that moment word came from the observatory that space travelers who had just landed reported having seen the hugest space ship in the world, they believed—a ship at least fifteen miles long. And a few minutes later they had sighted a second almost as large, following the first.

"They're hovering over the earth at a point not more than a thousand miles from here. The Grey Plateau. They were communicating in a weird tongue. It must be the deadly giants."

A few minutes later all of the available spacecraft and aircraft were taking off into the night and moving out, a phantom fan-shaped party creeping stealthily under the stars. In the foremost ship, no other than the Mars boat which had once been pressed

into service for an escape from Banrab and had never been returned to Madame Zukor, Katherine Keller sat at the microphone directing the other ships. On a wave length that would not intrude upon the conversation between the giants, she spoke to the earth people.

"Yes, it is my own husband speaking in Mogo. I would know his voice anywhere . . . The two boats are circling slowly about a hundred miles above the surface of the earth . . . Follow my directions closely, all of you, so that you won't be seen. If any bombs start falling, take to the skies."

At dawn the two Mogo boats, still circling, spiraled toward the surface. They had kept approximately two hundred miles of space between them, but gradually they were coming in closer.

Katherine could understand enough of the Mogo language to relay the strange conversation to all of her listeners. Mamma Mountain sat near her, watching her tense movements. The terror of an earlier hour was less evident now. She was beginning to reveal a curious amusement over this strange phenomenon.

"My husband is imitating a female of Mogo," she said.

Mamma Mountain shuddered. She couldn't picture anyone as manly as Paul doing female imitations. But that was what Katherine believed was happening. Something was being used to change his voice enough so that it had taken on the very appealing quality of an attractive Mogo girl.

"Gret isn't saying a word," Katherine declared. "The heavy voice you hear is coming from the other ship. That's Mox. He's asking the girl to sing it again. There—Paul's off again . . . Mox doesn't know the other ship is Gret's. He thinks the girl has come in it alone, looking for Gret. So he's making her believe—"

Katherine continued to broadcast, on the private wave, the strange drama. The girl—Paul—was speaking now, asking the occupant of the other ship if he was not Gret-O-Gret!

"But Paul is with Gret-O-Gret!" Mamma Mountain blurted.

"Of course he is—but Mox-O-Mox, in the other ship, is being taken for a ride. Listen, now." And Katherine gave more interpretations as they—Mox-O-Mox and the unseen "girl"—conversed.

"You remember our letters, Gret," the female Mogo voice was saying. "I told you I would write love songs for you. You *are* Gret, aren't you? I've followed the instructions they gave me when I came to the City of Forty Towers to meet you. You know I've never really met you. It will be strange to meet for the first time in this far off land, won't it, my darling Gret?"

Mox had been quick to seize his advantage. He was doing his best to pretend that he was Gret-O-Gret. Any blessing of Gret's was his if he could steal it. If a girl who had never met Gret thought enough of him to follow him all the way to this lost universe, far be it from Mox to send her back disappointed. After all, Mox had been floating through the skies for a long time without any companionship whatever.

"MOX is talking big, like a man who has just come into a million dollars," Katherine said, interpreting the lusty booms that sounded in over the speaker. As everyone in the earth's spying party could see for themselves, the two ships were getting closer together all the time, and were certainly going to land on top of the Gray Plateau.

"I have always admired your letters, Gret," came Paul's honeyed voice in fine Mogo enunciations. "Are you ready to meet your little Jun-Ze-Jun?"

Mamma Mountain almost shrieked when Katherine relayed this one. "I can't stand it. A nice man like Paul playing such games."

The party of spying earth ships landed in the shadowed terrain just before the sun peeked over. From here they could see and not be seen. To the west of them the shelf of the Gray Plateau extended for many miles in full view. The two vast Mogo ships settled down like two great bomb-shaped clouds, their sides gleaming in the pink light of dawn. Then

as the sun's rays struck them, they lit up with a glare of gold.

"Mox is falling for her, I can tell," Papa Mouse whispered. "Gee, is he going to be surprised?"

"There'll be an awful fight!" Katherine said. "I'm afraid—I don't know whether Gret is equal to it. Once before, when they fought, Mox beat him brutally . . . *Watch!*"

The two giant boats had stopped in a T formation, so that the side of the larger boat could be seen when its air-locks opened. Mox stepped out. To most of the earth people who had seen Gret once before, Mox looked very much like him. But to Katherine he was different, even when viewed from a distance of five miles. His high bronzed head caught the sunlight as he towered among the wisps of clouds. His four legs stepped along with a gay prance. At a little distance from the air-locks of the other ship he hesitated. Perhaps, Katherine thought, he had noticed for the first time that the ship looked familiar. Or had he ever seen the ship that Gret had come in?

"Maybe he isn't so sure she's alone," Mamma suggested.

"Oh, she's quite alone, *he* thinks," said Katherine.

"Then what's he stopping for?" said Papa. "I'd walk right in without knocking. Remember the old days, Mamma?"

"I remember you always brought a box of candy," said Mamma. "And look what it did to me."

"*Watch!*" Katherine gasped. The radio talk had stopped. But some of the show was audible through the four or five miles of distance that separated the earth observers from the scene of action. The smaller of the two Mogo ships suddenly *leaped forward*, like a lion springing. It crashed into the air-locks of the ship that belonged to Mox. That was the blow that was heard. A little cloud of dust and a glint of twisted metal, and then, to the ears of the watching party the faint, "*kalunka-lunk!*" of the crash.

MOX could be seen jumping back, waving his four hands in alarm. The

big ship had stopped as suddenly as it had lurched forward, and he may have thought, for an instant, that the jump was an accident. Before he had time to decide what was what, the ship of Gret began spraying smoke on him.

Several jets from the side of the ship shot forth smoke simultaneously. Katherine heard Mamma Mountain give a weird "Wooo-ah!" as her bugging eyes took in the sight. Several colors of smoke were coming from the several openings. Blue and green and gold and pink. They were all turned on the staggering giant. Yes, he was staggering. Trying to run, fighting the smoke off with wildly flaying arms. Blowing back at it. Roaring at it. Cursing it.

He stumbled to his four knees. He turned back toward the smoking ship, trying to peer in, as if wondering what could have happened to the charming Jun-Ze-Jun! But he was out of breath and almost down. Then he sprang to his feet and tried to run. The smoking ship moved toward him and began to follow. He dodged. It circled him, and great clouds of color belched forth from its many hidden spouts.

He crawled to the edge of the plateau, and Katherine and her party could see the look of dismay in his fiery moons of eyes. He blinked slowly. The earth shuddered as he fell to his four elbows and allowed his head to thump against the ground. He was suffocating in a whirling cloud of colors that paralyzed him as they fused.

Gradually the smoke cleared, and they could see him plainly, less than a mile from their shadowed point of observation. His fingers-of-fingers were barely twitching. His lips moved slightly—he was evidently trying to blow the paralyzing air away from his head. His moon-like eyes were half closed. For all practical purposes he was paralyzed.

Then Katherine and the others saw Gret-O-Gret step forth from his own ship and walk toward the fallen figure. Clinging to the fingers-of-fingers of one upraised hand was Paul. Katherine turned to the telescope to see him plainly.

"Is he all right?" Mamma Mountain

asked.

"He never looked better," Katherine said, and then she cried.

Later that day the many parties of visitors from the New Earth settlements came and went. Those who were not afraid were allowed the curious pleasure of walking over the chest of Mox-O-Mox.

Mox had been securely shackled—chained and bolted with the massive hardware of another world. He was fastened, neck, shoulders, wrists, knees, ankles and belly to a mile-long slab that might have been an immense box top. Whatever it was, the giant Gret-O-Gret treated the cameramen and news reporters to the spectacle of the year when he lifted his Mogo cousin onto the slab and went to work fastening him down.

WHEN Mox-O-Mox began to regain consciousness he was quite unable to struggle. He groaned and whispered and at once began to confess his evil deeds, even though no one was pressing him for conversation. The visitors on his chest ran down over his shuddering flesh, and were sometimes knocked down by the thump of one of his six hearts in their scramble to get away from his thundering voice.

His words were recorded, and the time would come when earth men other than Katherine and Paul would have the privilege of knowing his language and interpreting for themselves his confession of this hour.

"Please don't take me back to the Mogo Courts, Gret. I admit that I did it . . . Yes, I crashed their planets. I murdered the little insects by the millions. I did it to spite you, Gret. What are you going to do with me? Don't take me back to the Mogo Courts . . ."

Paul Keller, looking quite tired and grave in spite of his recent cheery Mogo singing, slipped his arm around Katherine and responded to her happy smile. Together they interpreted the Mogo words to the newsmen as Mox went on talking. It all sounded convincing to the editors of the 12-page *New Earth*, and they celebrated the event by putting out a special

thirty-two page edition.

That evening a little man by the name of Papa Mouse came into his special hour of glory. Everything from the Gray Plateau had been moved to the space port of the New Earth capitol for the benefit of all comers who wanted a glimpse of a helpless mile-tall giant, or his ship. (The damaged ship, Gret had decided, was to be left with the earth people, a Mogo souvenir.)

There was just the slightest possibility that Mox-O-Mox might regain enough strength, not to break his bonds, but to twist or crack the box lid to which he was bound. Consequently, Gret parked his own thirteen-mile-long space ship at the prisoner's side and attached to the smoke-making apparatus a simple switch which could be controlled by any earth person. And that was Papa Mouse's honor—to sit in the crow's nest of one of the spaceport's observation towers and keep watch on the Mogo monster lying there across the landscape. Any time that Mox showed signs of becoming too active it was Papa Mouse's privilege to turn on the current. The smoke cloud did the rest.

Papa liked it. The newspapers carried a special story of his interviews. "I always wondered how it would feel to overpower a giant," they quoted him as saying. "And how is it?" they asked. "Wonderful! It's all a matter of self-confidence. Mamma Mountain had better take warning, from this day on I'm a changed man." He pressed the button, and the massive Mox, who had just flicked an eyelash, forgot to unflick it.

## CHAPTER XXXX

GRET was about to leave the solar system and journey back to Mogo land. His prisoner, resting none too comfortably, had become reconciled to the fate of facing the Mogo Courts. It was the most merciful fate he could ask. His disorganized mumblings revealed that he knew he was lucky not to be executed at once by the earth people.

In the short time that Gret remained in the New Earth capitol before his final

departure, he succeeded in winning the friendship of the governing committee and the public at large. His sincerity was unquestioned. Paul and Katherine acted as his interpreter. They demonstrated his ship to all comers at his request, and they also showed their own films from Mogo Land. In short, a few days of communion between Gret and his earth hosts resulted in establishing a solid foundation for harmonious relationships between the two universes for the centuries to come.

No one who listened to Gret's earnest dissertations on the Mogo Courts doubted that Mox would get his just dues upon his return. And the oath of no more assaults from the great creatures of Mogo Land became a cornerstone of the new interplanetary and interstellar understanding.

"If I thought I could help you reorganize and rebuild, without doing incidental damage with my huge feet," Gret said, making an expression of humor, "I should be glad to stay. But I have watched the progress you have already been making—and such rapid progress! Already your population is growing by the hundreds daily, as you select your new members from other planets. Then too, I understand that new members are being born to some of you who have been living here during the past many months. I trust that this method of adding to your population will not fail you as the years go on, but will serve you well."

His audience smiled as these words were interpreted by Katherine at the microphone. The New Earth was indeed taking pride in each and every addition of population which might be credited to some New Earth stork.

"You will survive and will prosper and will again become a great proud race," Gret said in conclusion. He was lying down on his belly, his great head propped in his upper hands, so that his face could be nearer the people assembled in the spaceport plaza. "And now, before I depart finally, is there nothing more I can do for you in the way of favors? Do not hesitate to ask me."

For several moments after Katherine relayed these words to the audience, there

was only the hum of the crowd, looking around at itself, wondering if anyone would speak up.

Then a different hum sounded from over the tops of buildings and a plane came roaring over. It was flying crazily. It made a perilous dip, it winged toward the crowd, then zoomed up again and shot off toward a ruined hillside where there was nothing but broken rock. For a moment it appeared to be maneuvering for a landing. However, it failed to cut its speed, and now it was heading straight for the rocky ledge.

"Who's running *that* relic?" Paul asked Katherine.

"Never saw it before," she said. "Someone doesn't know how to—it's going to crash!"

A door swung open and two figures leaped out into the air. The plane crashed. A spurt of flame, a cloud of black smoke, the echo of disaster—or had it crashed harmlessly? The two figures who had leaped out were winging back toward the crowd.

"Wingmen!" Paul gasped. "Why, it's Green Flash . . . and Purple Wings . . . Now how did they ever . . ."

The two winged visitors were waving their arms in gestures that seemed to say, "Will you welcome us?" They were coming fast. They circled around Gret's head, hovered for a moment within the glow of his great purple and orange eyes, and then spied the little broadcasting platform on which Katherine, Paul, Waterfield and a few other dignitaries were standing.

"Green Flash!" Paul called. "Purple Wings! Where did you come from? How did you manage to fly a plane? Where did you learn—"

THE questions were plentiful and the answers not too clear. Later they were to learn more of the strange story of the winged couple's effort to come across to the continent of America—how they had flown up and down the coast and tried island-to-island hopping, only to be driven back by vast waters too wide to be crossed on wing. Eventually they had uncovered a hangar of planes from the ruins of a coast town. They had experimented—had

crashed seventeen planes in their crude experiments, working at first from the outside, using long wires to set off the controls as they tried to learn the technique of taking off. Later they had dared to sit inside the plane and try its levers—

"But we never learned to land," Purple Wings said, shaking her wavy black tresses. "We would always fly out and let the plane crash—and that was the only thing we dared do now. Some day will you teach my husband to fly?"

All of which was entertaining enough, but quite beside the point. The winged couple had come for a purpose. They had been driven by desperation. They needed help. Over on the other side of the sea there was trouble that was bigger than they.

"We did not dare go against the will of the other voters and set certain prisoners free. The only thing we could do was to come and let you know. We think you will want to set them free."

"Who?" Katherine asked.

"George Hurley and Anna Pantella."

"George? Anna? They're—you mean —"

"They are prisoners at Banrab, in the *hospital* which we wingmen maintain for the examination and treatment of our patients, the earth men." It was a proud speech for Purple Wings, and she finished it with a little bow.

Katherine might have berated Paul for his slow wits. She was feeling quite helpless all at once, wishing he would do something. But as usual, his ideas were a jump ahead of her best guess. He had turned to the microphone. He spoke something to Gret-O-Gret in the Mogo language.

"Yes, yes, of course," Gret-O-Gret replied. "Do some of you wish to go along? Katherine? Mamma Mountain? And your powerful little husband?"

Papa Mouse wasn't interested, thank you. He was still in the height of his glory, holding his smoke spell over the earth's destroyer.

## CHAPTER XXXXI

IN THE Banrab cave, Garritt Glasgow moved back and forth past the bars

that had held him prisoner many, many months. He was not quite mad. There were still clear-cut motives that put energy into his ceaseless pacing. Certain things he planned. Certain things he wanted. Certain deadly destructions he intended to commit when the opportunity came.

It would come. It would come. Time would not always be a pacing back and forth in a dark cave. Time hadn't stood still for him ever. Even in this dungeon his diseased mind had found new events to feed upon.

Beyond the bars he swept his fingers lightly over a shadowed mound of dirt and small rocks. No one knew what that contained. The wingmen had never noticed it. Once he had almost dug into it and taken the treasures from it and exploded his way out. His desire to see the outside world had almost forced him—once. But he had resisted that once, and had strengthened his mad will to wait. He would keep those two bombs concealed until the time came to make them count. That would be when his sister and Poppendorf returned.

They had run out on him. Eventually Madame Zukor would come back for him—after she had set things up to take the earth into her own grasp. He knew her wily ways. She meant to outdo him—to make him second or third or fourth in command—but not to let him ever seize the reins again. No, he would get the crumbs from her table . . . That was what *she* thought.

Many times in his solitude Glasgow had weighed the two bombs in his hands. His strength was equal to the feat of hurling them, hard and fast and sure . . . The time would come. It would be an accident, of course . . . And Madame Zukor and Poppendorf would die . . .

Time had not stood still.

Once he had hoped that the young couple, George and Anna, might have enough influence on the outside world to bring rescuers to Banrab. But he had given up that hope several months ago. George and Anna were going to have a baby—very soon.

They were going to have a baby, and

they were already carrying on silly chatter about what they were going to name it. Their high spirits were something he could not understand. There they were, far down the cavernous corridors beyond the assembly chamber, with no more advantage than Glasgow except for an occasional glimpse of a streak of sunshine. And yet somehow they were managing to be happy through it all. The wingmen liked them. The wingmen even trusted George with a razor, Glasgow had heard. Well, they'd better not trust *him* with a razor. He'd slit their wings for them, the squawking savages.

Thud. Thud . . .

What was that? Something in the wall. In the old entrance.

Thud. Thud. Swisssh! A lot of stones were sliding. Something was at work tearing away the heap that had sealed the doorway.

**S**WISSSH. A streak of light struck through. The stones were being combed away. The big boulder that formed the corner of Garritt Glasgow's cell was suddenly brushed aside. A shower of rocks and dust fell around the corridor floor. Glasgow leaped to the shadow where his bombs were concealed. Delicate things—a little more of this rock shaking would set them off. He hugged them to his stomach.

He heard an outcry from Anna, far down the corridor. George shouted, wanting to know who was there. Who was coming in?

Glasgow ran out into the corridor. It shocked him to realize that for the moment he was free. He was out of his cell. He was being forced to escape, whether he wanted to or not. Once he heard some wingmen screaming from the old cliff road, where the force was breaking in anew. They didn't sound bold. They sounded scared to death. He was running around in circles. There was only one way out for him, if he dared—

A huge hand scraped away several tons of debris and Glasgow saw, as plain as the blue daylight that streaked in—it was the hand of Gret-O-Gret—the fingers-of-fin-



gers!

The wild panic that had once seized Glasgow when he and Paul and Katherine were in their ship on the Mogo planet, and the giant hand had cut into the side and forced them out, was upon him again—the same terror multiplied by all his later guilt.

"He's after me. He's come to get me!" Glasgow shrieked. "Help me, Paul! Don't let him—" He choked off, trying to get control of himself. No sense in calling to Paul Keller. Paul wasn't here. It was just the giant this time. That deadly hand that had almost taken him before—that had once imprisoned him—it was going to close over him this time. Unless—

The bombs were there, in his hand, hard against his stomach. He was doubled into a ball of terror, and that giant hand—ah, he was on his own, and he had two bombs.

"What luck!" he uttered a wild cry. For suddenly the hand had withdrawn, and now it was Gret's eye—his great orange and purple moon of an eye—that filled the whole out-of-doors. It moved up to the

cavern opening.

Two eyes—two bombs! It would be easy. A mental picture of a blinded giant roaring through the universe was all that Glasgow could see. A blinded giant, stomping and roaring and raving, trampling all of man's New Earth to hell under his feet. That's what would happen. Glasgow would win. He would win after all—with two bombs—two bombs, because the giant had two very vulnerable eyes.

One of those eyes now moved up close to the newly torn cavern entrance.

Glasgow ran toward the eye and let fly with the first bomb. The trigger snapped on it as it sailed from his hand. It would flash in an instant—

In an instant! What a long time is an instant. What a surprising lot of motion can take place in an instant.

The eye flew upward, out of sight, and there, instead, were the giant's lips, *blowing!*

One hard puff of air into the cave. One tornado puff. A blast that would have hurled Glasgow and all the other prisoners

## YOU LOVERS OF THE WEIRD AND THE SUPERNATURAL—

Buy these books direct from the publisher!

### ☐ SUPERNATURAL HORROR in LITERATURE by H. P. Lovecraft

This is the only comprehensive book on horror, ghost and supernatural fiction. Every lover of these subjects will find this volume of extraordinary interest. Edition limited to 1000 copies \$2.50

### ☐ THE CIRCUS OF DR. LAO by Charles Finney. . . . . Illustrated by Artzybasheff

Take a mad, magnificent, ribald work that the critics raved about. Mix it with some rather gay, fantastic illustrations by Artzybasheff and you have "The Circus of Dr. Lao." Out of print for years. Limited edition now available \$5.00

### ☐ H. P. LOVECRAFT—A Memoir by August Derleth

Everyone knows Lovecraft as "a master of the macabre." This book about him will appeal to anyone interested in the weird and supernatural, or in his technique, methods of composition, modes of construction and style. Complete bibliography, fully indexed. Limited to 1000 copies \$2.50

### ☐ PILGRIMS THROUGH SPACE and TIME by J. O. Bailey

The only book length history and analysis of scientific fiction. Covers about three hundred pieces, beginning with Lucian of Samosata's "True History" in the Second Century, to the present . . . everything from Wells and Verne to dime-novel literature, pulps and the atom bomb is covered. An amazing book \$5.00

**ARGUS BOOKS, Inc., Dept. Z, 3 West 46th St., New York 19**

Please send me the book(s) checked above. I enclose \$ . . . . . in payment. ☐ Send C.O.D.

NAME .....

ADDRESS .....

against the wall, even if there had been no flash of fire.

The flash came—the bomb returning—

Flash—pain—death. Glasgow knew it was death—and then it was death, and he knew no more.

## CHAPTER XXXXII

OUTSIDE the cavern of Banrab they tried to comfort Gret-O-Gret. He was moaning softly, and the great tears from his eyes streamed down the mountainside trail.

"You couldn't help it, Gret-O-Gret," Katherine tried to comfort him. "You had to protect yourself. Don't grieve so. Maybe we'll find Anna and George still alive, if you'll just help us."

Gret moaned that there was simply no chance. The blast of air itself would have killed any human being in the cave, he believed. To have sent the flying bomb back into those recesses just as it fired off was sure to be fatal.

The disconsolate party waited, not knowing what to do. Some of the men, under Paul's leadership, began work at the cavern entrance again. If the bodies of Anna and George had not been disintegrated, they should be found. They deserved a burial with highest honors for all their heroism of the past—

"Here's your bodies!" Mamma Mountain suddenly cried out. "Here they come, right over the top of the mountain, and they're walkin' on their own legs!"

George and Anna, coming over the mountain, heard the wild cries of joy from the people down below, and they were jolted by the impulsive movements of a great Mogo creature, suddenly shifting on his elbows as he changed from his saddest mood to his gladdest. They would always say that it was positively the *biggest* change of expression they ever saw on a living face!

Just before they descended to join the waiting party, Anna and George stopped for a guarded word of conversation with the two winged persons who were carefully keeping out of sight.

"Remember," said Green Flash, "you

must never tell anyone that we lifted you out through the skylight ourselves. But we were worried for fear something might happen—"

"And since you're about to become a mother," Purple Wings added, "we couldn't let you stay in there and be frightened when the cave front began to break away."

"It was awfully kind of you," Anna breathed. "We'll never tell."

"You mustn't," said Green Flash. "It was quite illegal. But they'll never know, because all the other wingmen were out on the cliff road screaming their heads off . . . Good-bye . . . And good luck—"

"And don't come back to Banrab," Purple Wings said, giving them a little wave. "Hurry, now, or they'll wonder what's delaying you. We'll watch you. Don't stumble."

On the way back to the American continent in the Mogo boat the earth party and Gret learned the story of the strange wingmen's hospital. They listened with interest as George told them the fuller story of Glasgow's plans and ambitions, and how he had intended to be dictator of the earth at the start, and had dreamed of other conquests later, and how he had been bitter at Madame Zukor for outwitting him on the chance to escape. He and one of the porters—the one who had once been posted to push Judge Lagnese off the cliff and had been involved in other brutalities—were plotting Madame Zukor's and Poppendorf's murders and only biding their time for the Madame's return.

"So much for the wingmen's hospital," said Anna. She winked at George. "I have a feeling I could use another kind of hospital very soon."

THE baby was born a few hours later. George had paced the floor more in those two hours immediately preceding the blessed event, he said, than in all the months of imprisonment at Banrab.

Someone had tried to divert his mind with a bit of news that should have been very exciting to him.

"Madame Zukor has your ship now,

George," the news reporter said, "or rather she *had* it until yesterday. It was well enough disguised that it passed as her own—until she and Poppendorf started to take off in it from the space port. Do you know who recognized it?"

"No. Who?"

"Papa Mouse. He was on an observation tower, and acted on inspiration."

"What do you mean—inspiration?"

"He had access to that smoke gadget that Gret had used on Mox, and he turned the blast on Madame Zukor and Poppendorf as they were boarding. They didn't get off."

"They didn't?"

"You're not listening to me, George. They'll *tell* you when that baby comes. Don't you want to know what happened to your ship?"

"They'll tell me, will they?"

"The ship's okay, and Zukor and Poppendorf are safe in jail, waiting for a trial. Waterfield says it's high time the New Earth's courts began to function. By the way, what are you going to name the child?"

"If it's a girl, Anna. If it's a boy, we'll name him after Anna's brother on Venus—that's my plan, and I'm sure she'll agree."

"Good. What is her brother's name?"

George shook his head dizzily. "You know, it's a strange thing, but she's never told me what his name is."

It came, one of the new earth's healthiest, pinkest little citizens, and it was a boy. The bells rang and the whistles blew, and the Mogo ship all ready to take off for another world, with a prisoner inside.

"Pardon me, George," Paul said, tapping the elated new father on the shoulder, "but Gret-O-Gret would like to know the name of your child before he departs. If we're not rushing things—"

George turned to Anna. "You've got to tell me now, Pantella—"

"Mrs. Hurley, if you please—"

"Mrs. Hurley, what is the name of your brother on Venus? We've got to give this young man the right name."

(Concluded on page 177)

## Free for Asthma

If you suffer with attacks of Asthma and choke and gasp for breath, if restful sleep is difficult because of the struggle to breathe, don't fail to send at once to the Frontier Asthma Company for a FREE trial of the FRONTIER ASTHMA MEDICINE, a preparation for temporary symptomatic relief of paroxysms of Bronchial Asthma. No matter where you live or whether you have faith in any medicine under the sun, send today for this free trial. It will cost you nothing. Caution! Use only as directed. Address.

FRONTIER ASTHMA CO.  
482 NIAGARA ST.

494-A FRONTIER BLDG.  
BUFFALO, N. Y.



### Learn Profitable Profession in 90 days at Home

Men and Women, 18 to 50

Many Swedish Massage graduates make \$50, \$75, or even more per week. Large full time incomes from doctors, hospitals, sanatoriums, clubs or private practice. Others make good money in spare time. You can win independence and prepare for future security by training at home and qualifying for diploma. Anatomy Charts and 32 page illustrated Book FREE—Now! The College of Swedish Massage, Dept. 793-M, 100 E. Ohio St., Chicago 11

### Buy U. S. SAVINGS BONDS on the Convenient "PAYROLL PLAN"



Appear **SLIMMER**  
Look **YOUNGER**  
Feel **BETTER**  
*Instantly!*

Don't let them talk about your "Bay Window"—stay slenderized with this amazing free-action, eager comfortable, elastic woven garment!

"INTERLOCKING HANDS" PRINCIPLE: Clasp hands over abdomen, as in picture—raise and press gently—notice how much better you feel! Sturdy non-stretch fabric is BUILT IN with the stretchy weave of the Commander for EXTRA DOUBLE SUPPORT across the abdomen. Instantly the Commander fattens your "Corporation"—BRACES YOUR BACK—improves your appearance!

TRY IT 10 DAYS AT OUR EXPENSE: COMMANDER has real men's completely detachable athletic type pouch. Takes just a moment to detach for washing or replacing with another. Gives GENUINE male protection. Send coupon—wear the Commander TEN DAYS AT OUR EXPENSE—if you do not get all the results you expect, return it and YOUR MONEY WILL BE REFUNDED.

### MAIL COUPON NOW

Ward Green Company, Dept. T-5111  
342 Madison Ave., New York 17, N. Y.  
Send me Commander Supporter for Free Trial. I will try pouches 42-44 plus post age. (Sizes 48 to 47.) If not satisfied I may return it in 10 days and get money back. (Sizes 48 to 60, \$5.00.)

My Waist Measures.....My Height.....

Name .....

Address .....

If \$2.98 is enclosed with order, we pay postage charges. C Check here.

**10 DAY  
Free Trial  
Coupon**

# DISCUSSIONS



**A**MAZING STORIES will publish in each issue a selection of letters from readers. Everybody is welcome to contribute. Bouquets and brickbats will have an equal chance. Inter-reader correspondence and controversy will be encouraged through this department. Get in with the gang and have your say.

Address Your Letters to:

AMAZING STORIES "DISCUSSIONS," ZIFF-DAVIS PUBLISHING CO.  
185 North Wabash Avenue, Chicago 1, Illinois

## A COMPLIMENT AND SUGGESTION

Sirs:

Rog Phillip's "So Shall Ye Reap" is one of the finest stories I have ever read.

I especially like the way Phillips and Graham develop their idea of the origin of life because it ties in with my own thoughts on the subject. I, too, think life is a simple natural thing. If you have read "The Purloined Letter" by Edgar Allan Poe you will recall that the missing letter was found in the letter box right where everybody could see it but would never dream of looking for it. So too with life. Its very simplicity and out-in-the-openness make it all but impossible to see it.

One of the drawbacks to analyzing living matter is that chemical reagents such as stains and dyes used to bring out certain details of matter kill it. One way to get around this difficulty may be by using colored light to bring out details instead of stains or dyes. I have tried this on such things as *Culex* larva and a bird's feather. Details not noticeable under ordinary lighting stood out sharply in the colored light. This lighting was achieved by holding a colored piece of plastic material between the mirror of a microscope and the under part of the microscope's stage. This allowed me to adjust the colored plastic to produce a very light to a fairly deep shade of color. (Colored cellophane could probably be used to good results.)

In the case of the bird's feather an almost invisible part of the tip of the feather was clearly defined when a piece of red plastic was used to bring out this detail.

J. R. Guyton, Jr.  
1933 Middle St.,  
Sharpsburg, Pa.

*Your idea sounds like a good one, and we suggest that microscopists please take note.—Ed.*

## PROBABILITY PLUS

Sirs:

The greatest tribute that I can pay you is to advise am sending your story, So Shall Ye Reap, to my son who is Director of Atomic Research

at Oak Ridge, for the Fairchild Aviation Company.

Regardless of the events narrated in fiction form, it does contain a message for the alert mind and he had demonstrated that he has one.

The probabilities are that what you have predicted will not come to pass *unless* we have an Atomic War, and that seems certain. Caverns in rock might not be as safe as a city under the sea. One might build an underwater bungalow with fish lines hanging out of every window, and being a fisherman, would prefer that.

Your story certainly indicated far more than mere scientific attainments. Cannot decide if you are an Occultist, an Oculist, or a Seer. Definitely, your story had much more than entertainment value, and of course you know it did.

Because you forced me to stay up half the night in order to read your story, I am going to try to get even with you by telling you mine. I have a vivid imagination also, and it sometimes bothers me. In imagination, all I can visualize is Consciousness or Mind; ideas within that Mind; and Energy.

Time and Space are conceived as being merely Ideas within that Mind (though not a human mind), and mathematics is Its only interpreter; definitely not the Preachers.

Can appreciate Ron's thrill when catching a two-foot cockroach. I frequently brave actinic rays when trying to catch a one-foot fish. However, I use Noxzema as a salve for my exzema. Should atomic radiation cause mutations in the piscatorial tribe and be responsible for "bigger and better" fish, I am all for it.

Gordon H. Simmons  
202 No. George Mason Drive  
Arlington, Virginia

*We are pleased to note that you saw the significance of "So Shall Ye Reap" and we hope that if anything true exists here, your son can be instrumental in doing something about it. We appreciate your other comments too! Your editor is not an occultist, or a seer. We are merely observer! And we see much that the ordinary man misses, and scoffs at when he does see!—Ed.*

## PROPHETIC!

Sirs:

Just a word to let you know that I think "So Shall Ye Reap" was the most interesting and perhaps the most prophetic story ever to appear in your magazine. Such a state of affairs could and may well exist in the not too distant future. It seems to me that it would certainly be to our advantage to start a systematic search for the vast system of tunnels and caverns, portrayed in the very absorbing article, "Tunnels of the Titans." Surely, if such a system does exist, and the evidence seems to prove it beyond a reasonable doubt, it would be a good start, if not a complete solution towards the problem of a refuge for the Earth's millions. By all means, let us have more such stories, and many more articles about the mysteries of the tunnels.

I would greatly appreciate it if you could tell me where to find more literature on this subject, especially on the tunnels reported to be under the North American continent.

Louis Van Dolzer  
541 Coral Street  
Manchester, N. H.

*We are suggesting that authority Vincent H. Gaddis write you, giving you additional sources on tunnels.—Ed.*

## CONFIRMATION FROM STRINGER

Sirs:

I was somewhat surprised to note the letter of Charles H. Gesner which appeared in your March, 1947, issue and dealt with the tremendous cave alleged to exist in California.

The story as retold by Gesner is substantially accurate in all details and was at one time printed in the magazine of the Southern California Auto Club. The only existing copy of the blueprint showing the internal ramifications of this cave was in my hands for several years.

Although no one, to my knowledge, has as yet been able to re-enter this cavern I am of the opinion that it actually exists, although perhaps not to the dimensions given in the blueprint. The persons who asked my assistance in reopening the cave did not offer a proposition that could profit them in any way except should their story prove to be true, and I spent many hours crossexamining the original discoverer, now here in Mexico.

At the present time, this matter is, for obvious reasons, under the jurisdiction of the War Department.

Sparks Stringer  
Apartado 15 Bis  
Mexico, D. F., Mexico

*It would seem that entering a cave today is a matter for the War Department. We don't know, so we'll just have to let Mr. Stringer's statement stand. Personally, we'd enter the cave, and then we'd find out!—Ed.*

## Here's the Way to Curb a Rupture

Successful Home Method That Anyone Can Use  
On Any Reducible Rupture Large or Small

### COSTS NOTHING TO FIND OUT

Thousands of ruptured men will rejoice to know that the full plan so successfully used by Capt. W. A. Collings for his double rupture from which he suffered so long will be sent free to all who write for it.

Merely send your name and address to Capt. W. A. Collings, Inc., Box 579-C, Watertown, N. Y. It won't cost you a cent to find out and you may bless the day you sent for it. Hundreds have already reported satisfactory results following this free offer. Send right away—NOW—before you put down this paper.



## 1 STARTS YOU IN BUSINESS

### DELUXE TIES 100% WOOL INTERLINING

These ties are made of genuine neckwear fabric, resiliency constructed. Each tie has a label showing construction. Rapid fire \$1.00 seller.

SEND \$1.00 for Special Introductory Offer of a Deluxe Tie. Postage Prepaid. Only one offer to a customer.

PHILIP'S NECKWEAR, 20 WEST 22nd St., Dept. 814, New York 10, N. Y. CATALOG COMPLETE LINE FREE

COSTS  
YOU  
\$7  
DOZ.  
YOU MAKE  
\$5  
DOZ.



## DO YOU WANT TO STOP TOBACCO?

Banish the craving for tobacco as thousands have with Tobacco Reducer. Write for free booklet telling of impulsive effect of tobacco and of a treatment which has relieved many men. Caution: Use only as directed.

30 Years in Business  
THE NEWELL COMPANY  
224 Clayton, Sta., St. Louis 5, Mo.

FREE  
BOOK

## BOOKLETS

THE KIND GROWNUPS LIKE. Each one of these booklets is POCKET SIZE, also contains 8 ILLUSTRATIONS, and is full of fun and entertainment. 12 of these Joke booklets, ALL DIFFERENT, will be shipped prepaid upon receipt of \$1.00, cash or money order. No orders sent C.O.D. Print name and address and mail to:

Treasure Novelty Co., 72 Fifth Ave., Dept. 55-M, New York 11, N.Y.

## INVENTORS

Send today for "Detailed Patent Information" outlining preliminary steps to be taken toward Patent Protection, also convenient "Evidence of Invention" form.

VICTOR J. EVANS & CO.

224-L Merline Building

Washington 6, D. C.



STUDY AT HOME for Personal Success and LARGER EARNINGS. 39 years' expert instruction — over 108,000 students enrolled. LL.B. Degree awarded. All text material furnished. Easy payment plan. G.I. Approved. Send for FREE BOOK—"Law and Executive Guidance"—NOW.

AMERICAN EXTENSION SCHOOL OF LAW

Dept. 83-R 646 N. Michigan Ave. Chicago 11, Ill.

## BE A DETECTIVE

WORK HOME or TRAVEL. Experience unnecessary. DETECTIVE Particulars FREE Write to GEO. Z. D. WAGNER, 125 W. 86th St., N. Y.

## SOMEBODY ASK THE ARMY!

Sirs:

Here is some information you may have; if not, this can be added to the Shaver Mystery.

I will reveal no names or how I came across this as it might involve the Ordnance officer who told it to some friends of mine.

Recently in Mexico in some caverns the U. S. Army found six spaceships.

They know not who they belong to, or what they are made of. The construction of them is strange as they seem to appear to run of compressed air or by some such method. I hope this will add to your knowledge.

Kenneth Henderson  
1441 Madison Avenue  
Indianapolis, Ind.

*What the U. S. Army'd be doing in Mexico, we don't know. We'd take this with a grain of salt, Mr. Henderson, if we were you! But thanks anyway—it shows what sort of rumors are floating around these days—and after the saucers we'll be inclined to listen to almost anything with interest.—Ed.*

## IT'S UNPUBLISHED, BUT . . .

Sirs:

This letter regards your magazine entitled AMAZING STORIES. In the August issue you ran a story entitled "So Shall Ye Reap" by Rog Phillips. On page 32 of this story in footnote 2 you mention a book entitled "Nature of the Universe" by R. P. Graham. It is stated here that the book is not yet published. Could you give me more definite information about this book? For instance, the publishing house and the best place I could obtain a copy when they are released?

Vernon Beck, Jr.  
1505 North Durham Street  
Baltimore 13, Maryland

*We understand from Mr. Graham that the book is to be published privately. We've read it, and it's sure something! When he publishes it, we'll give it a notice in this magazine so you won't miss it.—Ed.*

## "NOTEWORTHY ACHIEVEMENT"

Sirs:

Stories of the atom bomb and its possible effect upon the earth and its inhabitants have continued to run riot during the intervening months since the destruction of Hiroshima. I have read dozens of them but I want to congratulate AMAZING STORIES for the most excellent presentation of them all, "So Shall Ye Reap." Mr. Phillips' achievement is noteworthy through its flow of unity and credibility.

His character, Lowahthy, is most logical against some of the monstrosities concocted by writers who seem unable to link imagination with possi-

bility. Lowahthy's unsureness is a blessed relief. It is most gratifying to find a supposed super being qualifying himself as neither the beginning nor the end. It supports the old saying, that the more a man learns, the more he realizes how little he knows.

Most writers of world disintegration stories seem invariably to vest their story value in the reader's ability to be horrified, whereas Mr. Phillips has mitigated the horror with an abundant flow of reality and abounding faith. The little man wanted to get back to his roach meat. It was what suited him.

We do not pity the African native for his ignorance. We admire him for his self-sufficiency and his voodooism, which bafflingly seems to work. I once dreamed I was a worm and lay amongst filth. My first realization was one of horror, then I remembered I was only a worm anyway and scarcely above the level of the filth itself, and so I cooed with contentment.

So, if the world is destroyed, and if civilization starts again from scratch, it will be the advancement of another level of intelligence. It will not be the depreciation of our own, for intelligence is not destructible. Intelligence leads ever toward betterment, and there is little logic in the belief that earth holds all of comfort and happiness for mankind. Else why would we have the growing urge to visit other spheres? We presume that the Elder Race did just that whether by conquering physically the realm of space or by transmutation. There seems to be a belief, however, that this race learned to conquer death before they were transported. If this is to be true in our own case, I guess we are due to tarry a spell.

I was very interested in the "Tunnels of the Titans" until I came to the paragraph about Death Valley Scotty. According to the newspapers and a court report, Death Valley Scotty never had a gold mine and therefore never took any great amount of gold out of one.

Mrs. Loubel Wood  
4017 Melbourne  
Houston 10, Texas

*Well, where did Death Valley Scotty get his money, then? It was always in gold, and there's no lack of proof that he had it. We'd be interested in your source.—Ed.*

## OPEN LETTER

Dear Mr. MacDonald:

We are glad that you, as well as many others, liked the story, "Miracle Man," but we cannot admit as you suggest, that it is spiritualism. "Miracle Man," like many of our stories, is based on factual incidents and is well enough documented to be conclusive from our point of view. These strange things, incredible things that have happened and are happening to people, might be called semi-Forcean occurrences. They are not exactly Forcean occurrences because there is no tangible

residue but something has happened that is beyond the scope of today's science. Dramatized, these incidents become stories whose purpose is to entertain as well as to bring these fantastic happenings to the eye of the more open-minded readers.

We admit it could have been a spirit. We admit also it could have been a tengu, as Mr. Shaver would suggest, beaming a message from the caves. Or it could be creatures inhabiting the earth who haven't yet been detected. Or it might be a group of men trying to further and protect the human race. Perhaps the White Brotherhood? Or—? This is the situation. We refrain from inventing explanations but prefer that the TRUE explanation be found and the issue remain unclouded by our opinions.

"Miracle Man" was not an attempt at evasion but an invitation, a challenge if you will, to solve these occurrences that border on the impossible yet happen every day. We don't know why they happen but we're trying to find out. That is our honest statement. Does it answer your question, Mr. MacDonald?

John and Dorothy de Courcy  
P. O. Box 271  
Oswego, Oregon

*No comment.—Ed.*

## HOW HILSCH TUBE WORKS?

Sirs:

A bad egg to you and your aides; do you mean to tell me you have never received even a theory about the operation of the Hilsch Tube? To me it is so simple and logical it is boring; the only reason it has not been advanced before is that your scientist has too little imagination, and your imagination too little science. I studied about the principles surrounding the operation of the Hilsch tube in high school—and so did you if you took physics.

Of course I am willing to admit that maybe there just ain't no such animal, and this is not the only theory which has not yet been advanced. When I explain, however, you can't fail to see some connection.

Do you remember anything at all about Bernoulli's Principle? He states in it that the faster a gas is moving the less pressure it exerts in any direction other than its line of motion. In other words, the molecules of all gases are constantly in furious motion in every direction; if you compress the air—or any gas—and release it through one little hole, only the molecules traveling straight for the hole at that moment would go through; of course in collisions they pick up quite a few passengers to take along—but by interrupting their own peculiar line of force or direction of motion you take away some of their energy.

That gas moving through a pipe has one thing which distinguishes it from all the rest of the air in the wide, free world—all its molecules are

## What To Do For Pains of ARTHRITIS Try This FREE

If you have never used "Rosse Tabs" for pains of arthritis, neuritis, rheumatism, we want you to try them at our risk. We will send you a full-size package from which you are to use 24 Tabs FREE. If not astonished at the palliative relief which you enjoy from your sufferings, return the package and you owe us nothing. We mean it: SEND NO MONEY. Just send name and address and we will rush your Tabs by return mail.

ROSSE PRODUCTS CO.  
2708 Farwell Ave. Dept. 135 Chicago 45, Ill.



## NAVAJO SADDLE RING

**\$3.75**

(Tax Inc.)

Massive style for men—dainty ring for women. Solid sterling silver with all the elaborate detail of a hand-tooled western saddle. Send no money. Just name, address and ring size. Pay postman \$3.75 plus postage. Or send \$3.75 cash and we will pay postage.

WESTERN ARTS, Dept. A, 327 DRAKE AVE.  
SAN ANTONIO 4, TEXAS

11 10 9 8 7 6 5 4 3 2 1 0 CLIP FOR RING SIZE

## INVENTORS

Learn how to protect your invention. Specially prepared "Patent Guide" containing detailed information concerning patent protection and procedure with "Record of Invention" form will be forwarded to you upon request—without obligation.

CLARENCE A. O'BRIEN & HARVEY JACOBSON

Registered Patent Attorneys

744-J District National Bldg. Washington 5, D. C.

## MECHANICS • HOME STUDY

Step up your own skill with facts & figures of your trade. Audel's Mechanics Guides contain Practical Inside Trade Information in handy form. Fully illustrated. Easy to Understand. Highly Endorsed. Check book you want for 7 days' Free Examination. Send no Money. Nothing to pay postman. ☐ Carpentry \$6 • ☐ Auto \$4 • ☐ Oil Burners \$1 ☐ Sheet Metal \$1 • ☐ Welding \$1 • ☐ Refrigeration \$4 ☐ Plumbing \$6 • ☐ Masonry \$6 • ☐ Painting \$2 • ☐ Radio \$4 ☐ Electricity \$4 • ☐ Mathematics \$2 • ☐ Steam Engineers \$4 ☐ Machinist \$4 • ☐ Blueprint \$2 • ☐ Diesel \$2 • ☐ Drawing \$2. If satisfied you pay only \$1 a month until price is paid.

AUDEL, Publishers, 49 W. 23 St., New York 10, N. Y.



## ILLUSTRATED COMIC BOOKLETS

THE KIND MEN LIKE (VEST POCKET SIZE)

They are loaded with rare cartoons. Full of Fun and Humor. 20 DIFFERENT booklets sent prepaid for \$1 in plain wrapper. Sorry... no c.o.d.'s.

GRAYKO Dept. 1096, Box 620, G.P.O., N.Y.C.

## High School Course at Home Many Finish in 2 Years

Go as rapidly as your time and abilities permit. Course equivalent to resident school work—prepares for college entrance exams. Standard H. S. texts supplied. Diploma. Credit for H. S. subjects already completed. Single subjects if desired. High school education is very important for advancement in business and industry and socially. Don't be hand-lapped all your life. Be a High School graduate. Start your training now. Free Bulletin on request. No obligation.

American School, Dept. H-782 Drexel at 58th, Chicago 37





**COLT & LUGER  
WINCHESTER &  
REMINGTON  
AMMUNITION  
SINGLE SHOTS  
DOUBLE BARRELS  
REPEATING &  
AUTOMATIC  
RIFLES-SHOTGUNS**

9MM-P38-25-30-32-35-38-45 ETC., AMMUNITION. SEND \$1 FOR GUNSMITH COURSE AND GUNS AND AMMUNITION CATALOGUE AND JOURNALS.  
New York Company, 10600-10710 West Block, Ridgeway, Pa.

## SONGWRITERS POEMS WANTED AT ONCE

Send Your Poems, Any Subject, for Immediate Examination and FREE BOOK: "YOUR FUTURE IN SONGWRITING."

**RADIO CITY MUSIC ACADEMY**  
1674 Broadway New York 19, N. Y.

Good News for "Western" Readers!

### MAMMOTH WESTERN

IS NOW APPEARING EVERY MONTH

RESERVE A COPY AT YOUR NEWSDEALERS

## CLASSIFIED ADVERTISING

### Song Poems

**POEMS Wanted.** Free examination. Send poems to J. Chas. McNeil, Master of Music, 510 ZD South Alexandria Ave., Los Angeles 5, Calif.

**SONGWRITERS:** Songs published monthly. Advance royalty. Send your songs or poems today for our exciting offer. Hollywood Tunemiths, Dept. EE-7, 1537 N. Vine St., Hollywood 28, Calif.

**SONGWRITERS:** Investigate outstanding service. Song Poems, Melodies. Publishers list free. Song Productions, Dept. F, 113 W. 48 St., New York 19, N. Y.

### Miscellaneous

**MAGAZINES** (back dated)—foreign, domestic, arts. Books, booklets, subscriptions, pin-ups, etc. Catalog 10¢ (refunded). Cicerone's Center, 863 First Ave., New York 17, N. Y.

**CORRESPONDENCE** Courses and self-instruction books slightly used. Sold. Rented. Exchanged. All subjects. Satisfaction guaranteed. Cash paid for used courses. Complete information and 100-page illustrated bargain catalog Free! Write Nelson Co., Dept. 56, Chicago 5, Ill.

**BORROW** by Mail! Loans \$50.00 to \$1,000.00 to employed men and women. Easy, quick. Completely private, confidential. No endorsers. Repay in convenient monthly payments. Details Free in plain envelope. Write First Loan Co., World Herald Bldg., Dept. R-58, Omaha, Nebr.

**SCIENTIFICTION**, weird, fantastic; books, magazines. Werewolves Bookshop, 621A Maryland, Pittsburgh 6, Pa.

**ALASKA**—"The Last Frontier" offers thousands of excellent opportunities! \$1.00 brings official Government map and 1947 copyrighted report describing potential opportunities in Commercial Fishing, Mining, Fur Farming, Prospecting, Aviation, Timber, Agriculture, Live Stock Raising, Business Enterprises, Government Homestead Lands. Alaska Opportunist, 6417 Homewood Ave., Dept. ZZ, Hollywood 28, Calif.

**RAISE** Turkeys the new way. Write for free information explaining how to make up to \$3,000.00 in your own backyard. Address National Turkey Institute, Dept. 280, Columbus, Kansas.

**FANTASY** and Science fiction collection to sell. Anyone interested send a self stamped addressed envelope to Norman Hill, 2005 Crocker, Houston 8, Texas.

**FOR** your World War II Album—Captured film, photos of the German Army. Remit your complete set of 45's—\$5.00. Veitone Studios, Box 360, Owensboro, Ky.

**FREE** for the asking: Send for our latest catalogs of Science Fiction, Weird and Fantasy Books. Be eligible for our bargain buys. Write today to: Cheney's Book Service, Dept. 1, 119 E. San Fernando St., San Jose 21, Calif.

moving in the same direction.

If there is a gas of any pressure acting upon its side it means that there are some molecules from that gas, which, by Brownian movement, has all its molecules in motion at various speeds, and in different directions are acting against the moving gas; since that moving gas can absorb those molecules there is diffusion from the still gas into it but not vice versa because all those of the moving gas are going in only one direction—and that direction does not lie toward the still gas.

If you run that moving gas into a Hilsch Tube you can easily see what happens—some of the molecules are traveling fast and others slowly; those traveling fast can give the impression of heat; those moving slowly give one the sensation of absence of heat.

If you spray a stream of water against an inclined surface you will see the fast water cling to the surface, forcing the slowed water to the top until all of it has been stopped by excessive friction. So be it with the Hilsch Tube. The faster molecules, or those having most kinetic energy, force themselves to the bottom or side of the tube and their more sluggish neighbors to the most convenient vacant place—the middle of the tube.

How does that sound? It is my belief that using this as a guide it will not be too difficult to design another from which you can have hot and cold gases coming from the same end, increasing efficiency and reducing its bulk.

I hope this can help you.

Robert Paul Kidwell  
Route 4  
El Dorado, Ark

*This sounds pretty reasonable to us. How about it, you scientist readers? Can you confirm this theory?—Ed.*

## GEIGER COUNTER

Sirs:

Read your story, "So Shall Ye Reap." Also read some very interesting data on the "Geiger Counter" mentioned so often in the story, in the June 14, 1947, issue of *Science News Letter*, which is a weekly paper. I thought you might be interested in getting a copy, for what they write about the "Geiger Counter" is very good, in relation to your story, "So Shall Ye Reap."

As far as any truth of your story is concerned, I believe it all. Guess I am one of those left out. Can't do anything about it. More room for more in the caves with me left out.

George Andrews  
8917 Cumberland Ave.,  
Cleveland, Ohio

*Thanks for your letter. We suggest that any of our readers who want to know more about the Geiger counter refer to the article in Science News Letter. We've had some letters in reference to it, and the interest evinced convinces us that not a few people are wondering if they'll be needing a counter in the near future!—Ed.*



**IMPOSSIBLE BUT TRUE**

(See Back Cover)

**The Mystery of  
THE BALL OF FIRE**

By

**Pete Boggs**

ON NOVEMBER twelfth, 1887, a British steamer, the *Siberian*, was proceeding at moderate speed past Cape Race. Suddenly the crew was startled to observe an enormous ball of flame rise from the sea and float into the air. It moved against the wind, proceeding toward the *Siberian*, as though a contact were inevitable, to the horror of all aboard. But at the last moment it moved away, and within five minutes was lost from sight.

What was this fantastic thing? How could a ball of fire come up out of the sea? How could flame move against the wind? Was it flame? Was it perhaps something radioactive? We may never know what it really was, but we do know that it really happened!

If you care to scan the record, here is a bibliography: *Nature*, 37-187; the *Meteorological Journal*, 6-443; *Thunder and Lightning*, p. 68; *L'Astronomie*, 1887, p. 76; *The Books of Charles Fort*. All competent sources.

It is impossible, but it is true!

**THE GIANTS OF MOGO**

(Concluded from page 171)

Anna gave a deep quiet laugh and reached out to take George's hand. "Don't be angry with me, Big Boy. I don't have a brother on Venus—all my family was lost."

"But your brother—the one you kept telling me about."

"All a fake. After I lost everybody all at once, here on the earth, I just had to have *somebody*, so I made him up—someone I could depend on—someone who would care for me and look after me—"

"But he sounded so real," George protested. "He was such a wonderful guy."

"That's because I patterned him after you," said Anna. "Tell Gret-O-Gret the baby's name is George."

**THE END****WORK FOR THE****GOVERNMENT****START \$1,756 TO \$3,021 YEAR**

Veterans Get Preference. Many examinations expected soon. **FRANKLIN INSTITUTE**, Dept. K106, ROCHESTER 4, N. Y. Fire! Rank without charge. (1) 25-page book with list of U. S. Government Jobs. (2) Tell me how to prepare for one of these jobs. **COUPON** NOW! Mail coupon today. **SURE.** Name ..... Address ..... Vet. ....

**If an INVENTOR  
BELIEVES HE HAS AN INVENTION**

a search of the most pertinent prior U. S. Patents should be made and a report obtained relative to its patentability. Write for further particulars as to patent protection and procedure and "Invention Record" form at once. No obligation.

**McMORROW, BERMAN & DAVIDSON**  
Registered Patent Attorneys  
186-H Victor Building Washington 1, D. C.

**LAW...**

**STUDY AT HOME** Legally trained men win higher positions and public life. Greater opportunities now than ever before. **More Ability. More Prestige. More Money** We guide you can train at home during spare time. Degree of LL.B. We furnish all text material, including 14-volume *Law Library*. Low cost, easy terms. Get our valuable 48-page "Law Training for Leadership" and "Evidence" books FREE. Send NOW, G. I. APPROVED. **LA SALLE EXTENSION UNIVERSITY**, 417 South Dearborn Street, Chicago 5, Ill. A Correspondence Institution Dept. L-33

**ILLUSTRATED COMIC BOOKLETS**

Sell our **ILLUSTRATED COMIC BOOKLETS** and other **NOVELTIES**. Each booklet size 4 1/2 x 2 1/2. We will send 25 assorted booklets prepaid upon receipt of \$1.00 or 75 assorted booklets sent prepaid upon receipt of \$2.00. Wholesale novelty price list sent with order only. No orders sent C.O.D. Send Cash or Money Order.

**REPSAC SALES CO.**

1 West 13th St., Dept. 40-N New York 11, N. Y.

**Bar Bells**

...at Factory Prices

WRITE FOR FREE BOOKLET AND PRICE LIST **\$8.95 up**INDEPENDENT IRON WORKS  
2416 East 23rd Street, Dept. 28  
Los Angeles 11, Calif.

"The Book They're Talking About"  
Contains over 300 illustrations, charts and notes  
**ART ANATOMY  
OF THE HUMAN FIGURE**

For the amateur and professional artist and sculptor. Giving detailed study of every part of the body. Male and Female, posed and in Action.  
Outside U.S.A. Send \$1.25

**\$100**

MAJOR BOOK CO. Dept. 72-B LYNBROOK, NEW YORK

## Let your HEAD take you

*(The average American today has a choice of just going where "his feet take him", or choosing wisely the course to follow. Let's skip ahead 10 years, and take a look at John Jones—and listen to him . . .)*

"SOMETIMES I feel so good it almost scares me. "This house—I wouldn't swap a shingle off its roof for any other house on earth. This little valley, with the pond down in the hollow at the back, is the spot I like best in all the world.

"And they're mine. I own 'em. Nobody can take 'em away from me.

"I've got a little money coming in, regularly. Not much—but enough. And I tell you, when you can go to bed every night with nothing on your mind except the fun you're going to have tomorrow—that's as near Heaven as man gets on this earth!

"It wasn't always so.

"Back in '46—that was right after the war and sometimes the going wasn't too easy—I needed cash. Taxes were tough, and then Ellen got sick. Like almost everybody else, I was buying Bonds through the Payroll Plan—and I figured on cashing some of them in. But sick as she was, it was Ellen who talked me out of it.

"'Don't do it, John!' she said. 'Please don't! For the first time in our lives, we're really saving money. It's wonderful to know that every single payday we have more money put aside! John, if we can only keep up this saving, think what it can mean! Maybe someday you won't have to work. Maybe we can own a home. And oh, how good it would feel to know that we need never worry about money when we're old!'

"Well, even after she got better, I stayed away from the weekly poker game—quit dropping a little cash at the hot spots now and then—gave up some of the things a man feels he has a right to. We didn't have as much fun for a while but we paid our taxes and the doctor and—we didn't touch the Bonds.

"What's more, we kept right on putting our extra cash into U. S. Savings Bonds. And the pay-off is making the world a pretty swell place today!"

*The Treasury Department acknowledges with appreciation the publication of this advertisement by*

## VIGNETTES

*(Concluded from page 87)*

the now "plane polarized" beam—as it is called—another slice of the same mineral, taking care that the face of this second slice is parallel to the face of the first. If now the second one is revolved in its plane it will be found that in a complete revolution of 360° there are two positions exactly 180° apart, in which the beam fails to pass through it, while halfway between these two it emerges with maximum intensity. Evidently then, while the tourmaline in thin slices is apparently transparent, because some rays are always striking it in the proper way to make the transit, yet it is completely so only in one direction.

SUBSTANCES like well-made glass or pure water, being strictly homogenous in structure, pass freely—if not too thick—all the rays that impinge vertically on their surfaces, and may properly be called transparent. Crystallized substances are more properly spoken of as translucent. Each of the seven great crystallographic systems—the triclinic, monoclinic, orthorhombic, tetragonal, trigonal, hexagonal and isometric—if to any degree translucent, has its own way of dealing with the ethereal rays; and these having been learned by experience, it becomes possible in many cases to determine instantly the class of a mineral (and often its membership therein) by subjecting a thin slice of it to the action of a ray. Thus the polariscope which is the name given to the instrument for polarizing rays of all kinds, has become a valuable tool in the hands of the mineralogist and geologist. In the applied arts it is also extensively employed, as, for instance, in the testing of raw sugar, to determine the amount of crystallizable sugar it contains.

## SPACE PILOT'S PROBLEM

*(Concluded from page 59)*

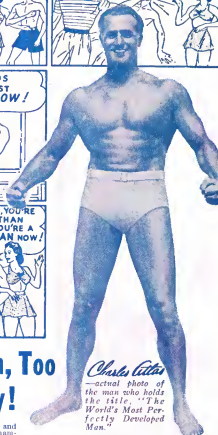
centered about our light-traveling object . . . for what solid could resist the pull of a mass infinitely greater. Also included in the cosmic menage would be every stray bundle of photons, every light ray, and every electromagnetic wave . . . all gathered unto one little space-ship that didn't realize what it was getting into.

(Incidentally, if free-fall is a rule in outer-space, why don't comets attain light-speed and infinite mass as they journey across the galaxy . . . and thus pull the universe about their ears? Something must slow them down out there . . . or else the theory of infinite mass at light-speed is wrong.)

Any future space travelers had better be prepared with some odd gadgets to fight off Mr. Lorenz, Mr. Fitzgerald and Mr. Einstein . . . unless they will be content to journey at a wee-bit less than light speed.

H. C. Goble.

# The Insult "CHUMP" Into a CHAMP



*Charles Atlas*  
—actual photo of the man who holds the title, "The World's Most Perfectly Developed Man."

## I Can Make YOU A New Man, Too In Only 15 Minutes a Day!

**H**AVE YOU ever felt like Joe—absolutely fed up with having bigger, buskier fellows "push you around"? If you have, then give me just 15 minutes a day! I'll PROVE you can have a body you'll be proud of, packed with red-blooded vitality.

"*Dynamic Tension*" That's the secret! That's how I changed myself from a scrawny, 97-pound weakling to winner of the title, "World's Most Perfectly Developed Man."

### "Dynamic Tension" Does It!

Using "*Dynamic Tension*" only 15 minutes a day, in the privacy of your own room, you quickly begin to put on muscle, increase your chest measurements, broaden your back, fill out your arms and legs... This easy, NATURAL method will make you a finer specimen of REAL MANHOOD than you ever dreamed you could be!

### You Get Results FAST

Almost before you realize it, you will notice a general "toning up" of your entire system! You will have more pep,

bright eyes, clear head, real spring and zip in your step! You get sledge-hammer fists, a fluttering rain punch—chest and back muscles so big they almost split you! Flat seams—riders of solid stomach muscle—mighty legs that never get tired. You're a New Man!

### FREE BOOK

Thousands of fellows have used my marvelous system. Read what they say—see how they look before and after—in my book, "Everlasting Health and Strength."

Send NOW for this book—FREE. It tells all about "*Dynamic Tension*" shows you actual photos of men I've turned from puny weaklings into Atlas Champions. It tells how I can do the same for YOU. Don't put it off! Address me personally: Charles Atlas, Dept. 11011, 115 East 23rd Street, New York 10, New York.



**CHARLES ATLAS, Dept. 11011  
115 East 23rd St., New York 10, N. Y.**

I want the proof that your system of "*Dynamic Tension*" will help make a New Man of me—give me a healthy, husky body and big muscular development. Send me your free book, "Everlasting Health and Strength."

Name..... Age.....  
(Please print or write plainly)

Address .....

City..... State.....

## **IMPOSSIBLE BUT TRUE**

On Nov. 12, 1887, the British steamer *Siberian* saw an enormous ball of fire rise from the sea off Cape Race, move against the wind toward the ship, then move away to be lost from sight in five minutes. What was it? Fire does not rise from the sea, it does not move against the wind. Was it really a submersible-aircraft-spaceship the *Siberian* saw?

